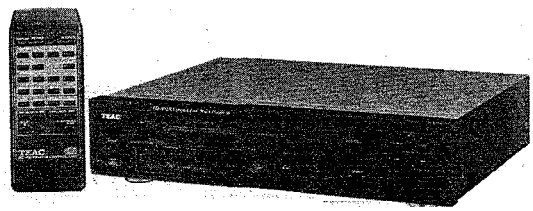
TEAC®



SERVICE MANUAL

PD-800M

Compact Disc Multi Player

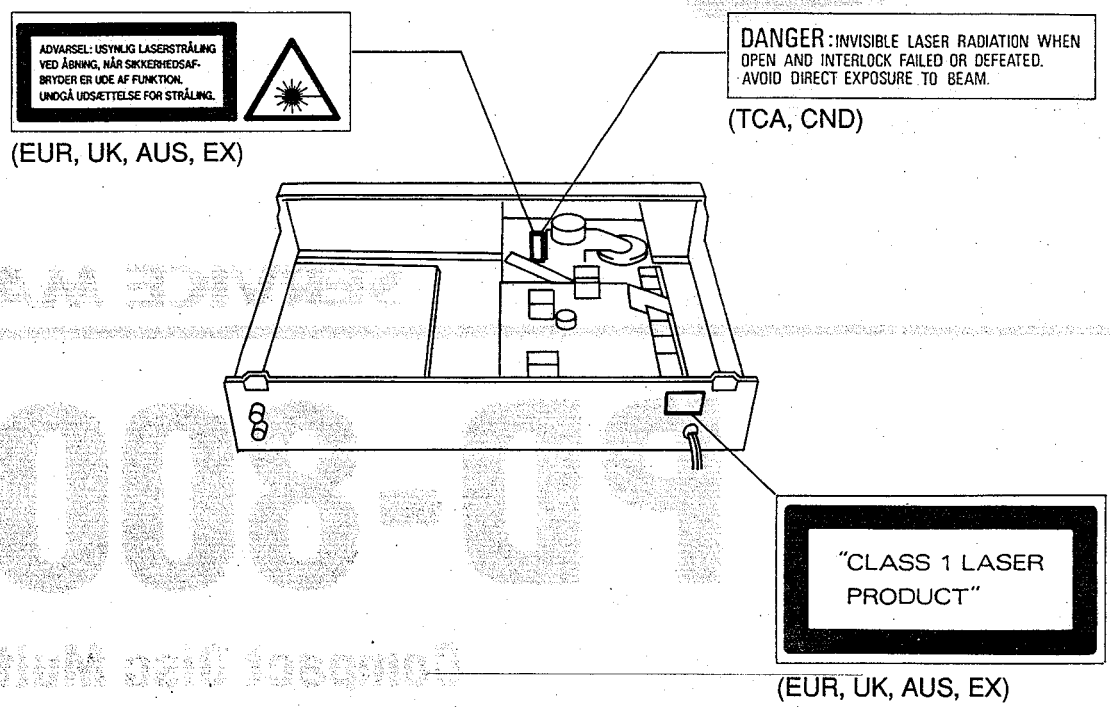
COMPACT disc DIGITAL AUDIO

NOTES

- PC boards shown viewed from parts side.
- Parts marked with *require longer delivery time.
- The mechanical parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. They must always be replaced with identical components refer to the appropriate parts list and ensure exact replacement.

5704053600

WARNING LABEL LOCATION



[TCA] : U.S.A. [CND] : Canada [EUR] : Europe
[AUS] : Australia [UK] : England [EX] : Other countries

SPECIFICATIONS

AUDIO

Number of Channels: 2
Frequency Response: 5~20,000 Hz ±1 dB
Signal-to-Noise Ratio: Better than 93 dB (1 kHz)
Dynamic Range: Better than 90 dB (1 kHz)
Harmonic Distorsion: 0.09 % (1 kHz)
Wow and Flutter: Unmeasurable (Quartz accuracy)
Channel Separation: Better than 85 dB (1 kHz)
Output: 2.0 Vrms

PICK UP

Type: Optical 3-beam laser pickup
Object Lens Drive System: 2-dimensional parallel drive
Laser Type: AlGaAs type semiconductor laser
Wavelength: 790 nm

SIGNAL FORMAT

D/A Converter: 16-bit linear
Error Correction: CIRC (Cross Interleave Reed Solomon Code)
Sampling Frequency: 44.1 kHz
Channel Modulation Code: EFM (Eight to Fourteen Modulation)
Channel Bit Rate: 4.3218 Mb/sec
Filter: 4 Times Over Sampling Digital Filter

GENERAL

Power Requirements: 120/220 V AC, 50/60 Hz
(General Export Model)
120 V AC, 60 Hz (U.S.A./Canada Model)
220 V AC, 50 Hz (Europe Model)
240 V AC, 50 Hz (U.K./Australia Model)
Power Consumption: 11 W
Dimensions (W x H x D): 435 x 101 x 332 mm (17-1/8" x 4" x 13-1/16")
Weight (net): 5.2 kg (11.46 lbs.)
Standard Accessories: Wireless Remote Control Unit (RC-410)
Batteries (SUM-3, "AA", "R6" type) x 2, 6-disc Magazine (MD-60P), Audio Connection Cord

DISC

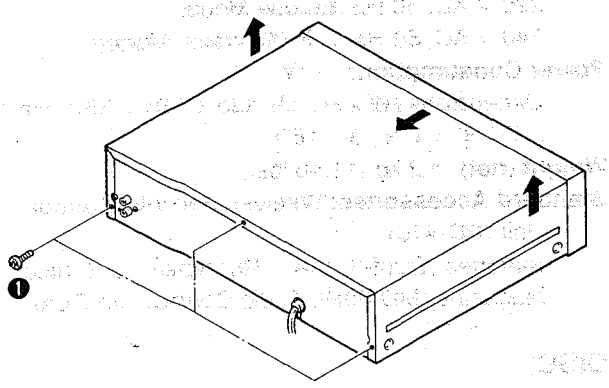
Type: Compact Disc
Playing Time: Approx. 60 min.
Diameter: 120 mm
Thickness: 1.2 mm
Scanning Velocity: 1.2 ~ 1.4 m/sec
Track Pitch: 1.6 µm

* Improvements may result in specification or feature changes without notice.

DISASSEMBLY INSTRUCTION

TOP COVER REMOVAL

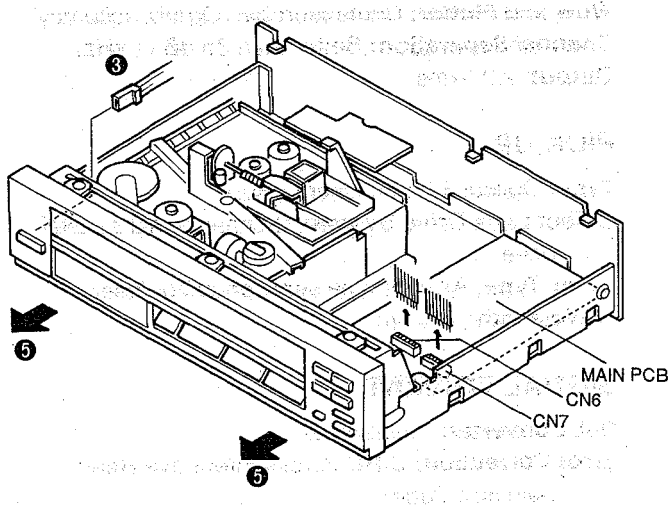
❶ Remove screws from the TOP COVER and lift it up in the direction of the arrow.



❸ Remove the flat cable with 4P connector connecting to the power supply PCB from the power switch PCB.

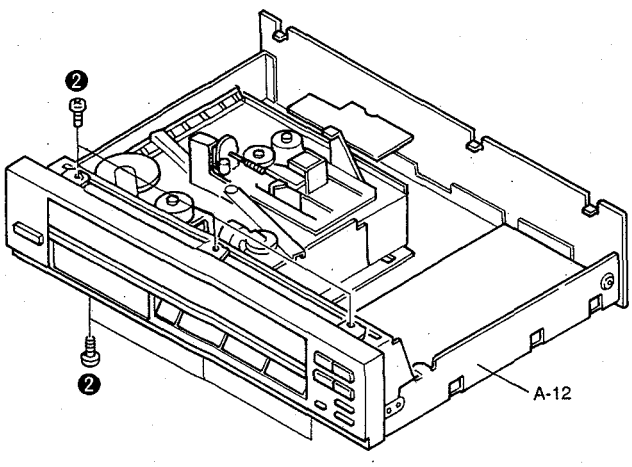
❹ Remove the connection of CN6, 7 (2 pcs) from the MAIN PCB.

❺ Pull out the FRONT PANEL forward to remove it.



FRONT PANEL REMOVAL

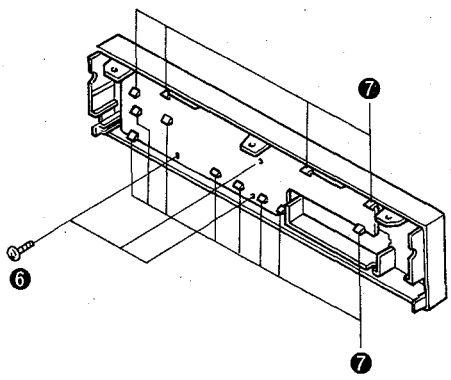
❷ Remove screws from the FRONT PANEL and remove the screw with ground wire connecting to the CHASSIS (A-12).



CONTROL PCB REMOVAL

❻ Remove screws (3 pcs) from the CONTROL PCB.

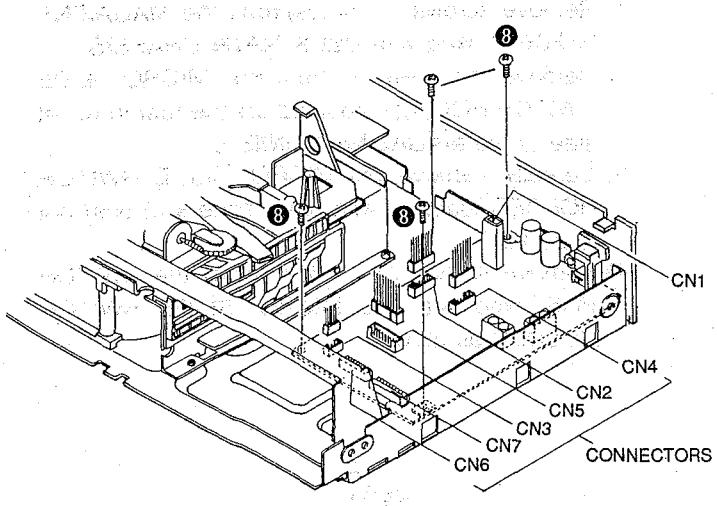
❼ Pull out plastic tabs (12 pcs) carefully from the CONTROL PCB to remove it.



MAIN PCB REMOVAL

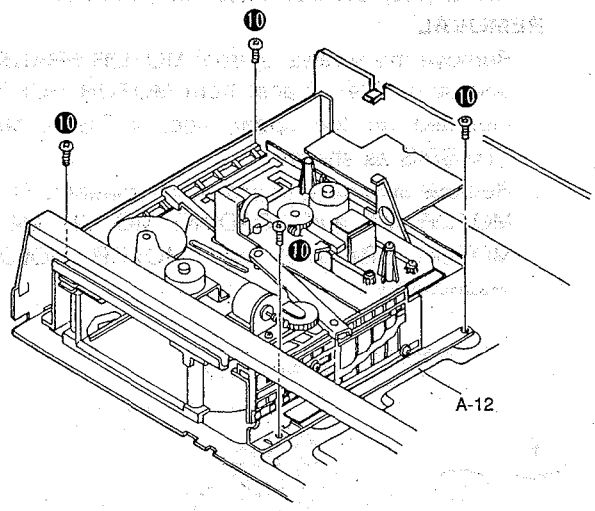
❽ Remove screws and connectors CN1, 2, 3, 4, 5, 6, 7, (7 pcs) from the MAIN PCB.

❾ Pull out the MAIN PCB carefully.



CD DECK MECHANISM ASS'Y REMOVAL

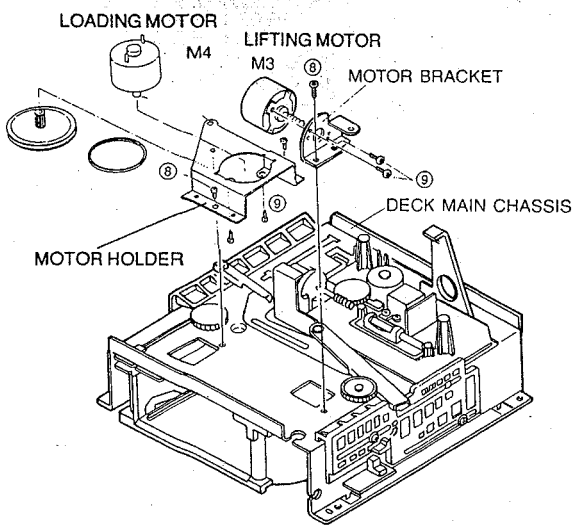
❿ Remove screws from the bottom side of the CHASSIS (A-12).



DISASSEMBLY INSTRUCTIONS FOR DECK MECHANISM SECTION

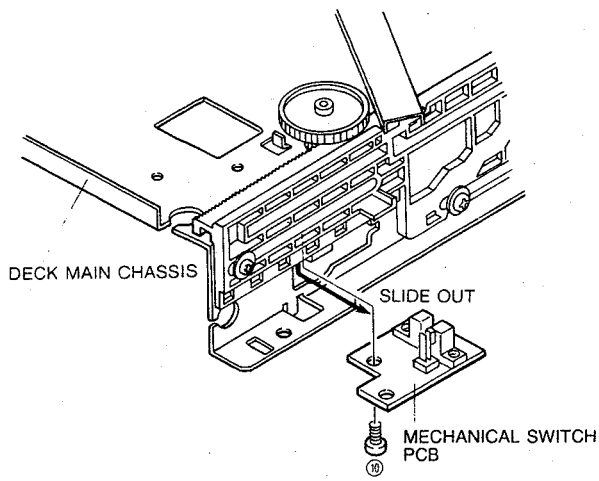
1. LIFTING (M3) OR LOADING (M4) MOTOR REMOVAL

1) Remove the screws ⑧ from MOTOR BRACKET and screws ⑨ (2 pcs) from MOTOR HOLDER mounted on the upper side of DECK MAIN CHASSIS as shown.
2) Remove screws ⑨ (2 pcs) which mount LIFTING MOTOR M3 and LOADING MOTOR M4 on MOTOR BRACKET and MOTOR HOLDER respectively.



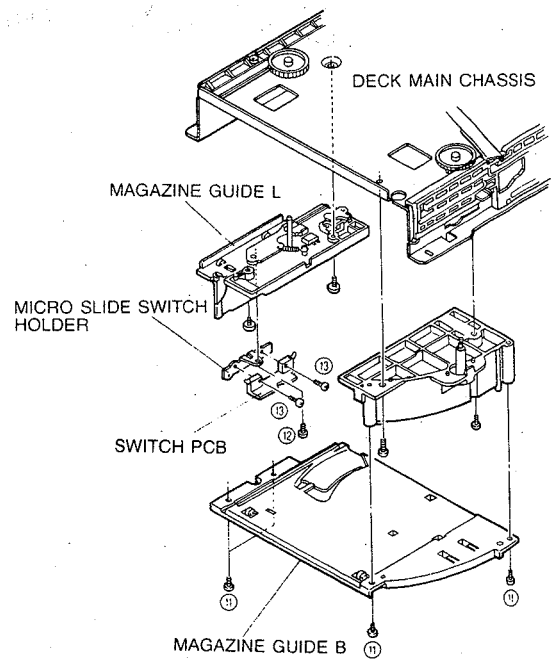
2. MECHANICAL SWITCH PCB REMOVAL

1) Remove the screw ⑩ from the MECHANICAL SWITCH PCB mounted on the front right side of the DECK MAIN CHASSIS.
2) Slide out the PCB through the opening located on the side of DECK MAIN CHASSIS as shown.



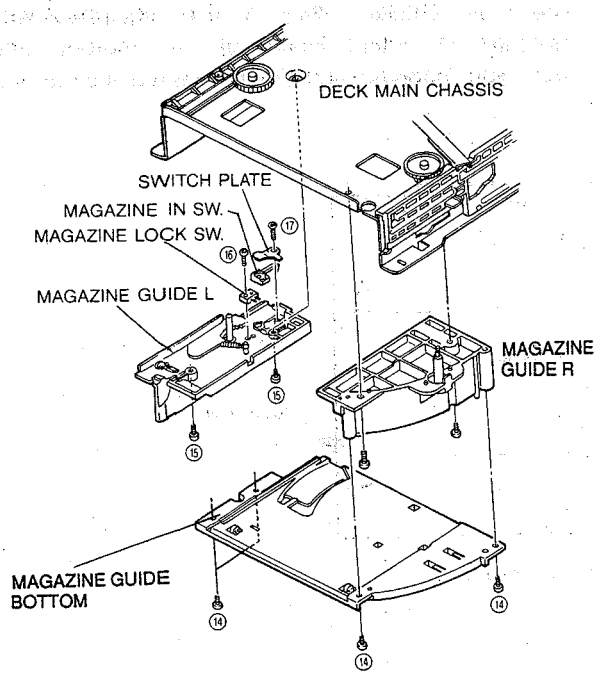
3. SWITCH PCB REMOVAL

1) Remove screws ⑪ (4 pcs)from the MAGAZINE GUIDE B fixed with DECK MAIN CHASSIS.
2) Remove the screw ⑫ from the MICRO SLIDE SWITCH HOLDER mounted on the rear front left side of the MAGAZINE GUIDE L.
3) Careully, remove the MICRO SLIDE SWITCH HOLDER together with small rollers (2 pcs) not to be lost.
4) Remove screws ⑬ (2 pcs) from the SWITCH PCB fixed with the MICRO SLIDE SWITCH HOLDER as shown.



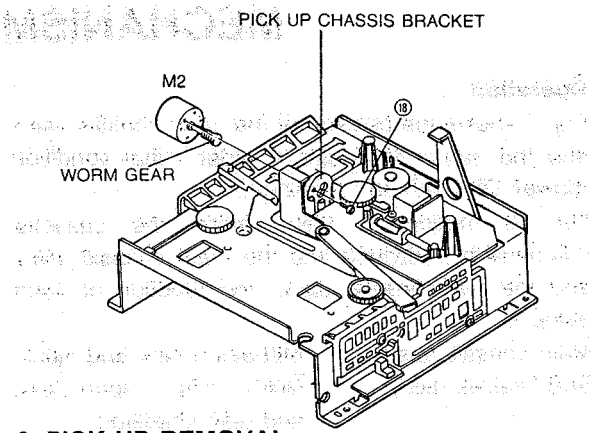
4. MAGAZINE LOCK SWITCH OR MAGAZINE-IN SWITCH REMOVAL

1) Remove screws ⑭ (4 pcs) from the MAGAZINE GUIDE BOTTOM fixed with DECK MAIN CHASSIS.
2) Remove screws ⑮ (2 pcs) from the MAGAZINE GUIDE L, mounted on the left side of DECK MAIN CHASSIS and pull it downward.
3) Remove the screw ⑯ from the MAGAZINE LOCK SWITCH, mounted on the MAGAZINE GUIDE L.
4) Remove the screw ⑰ together with the SWITCH PLATE from the MAGAZINE-IN SWITCH mounted on teh MAGAZINE GUIDE L.



5. FEEDING MOTOR (M1) REMOVAL

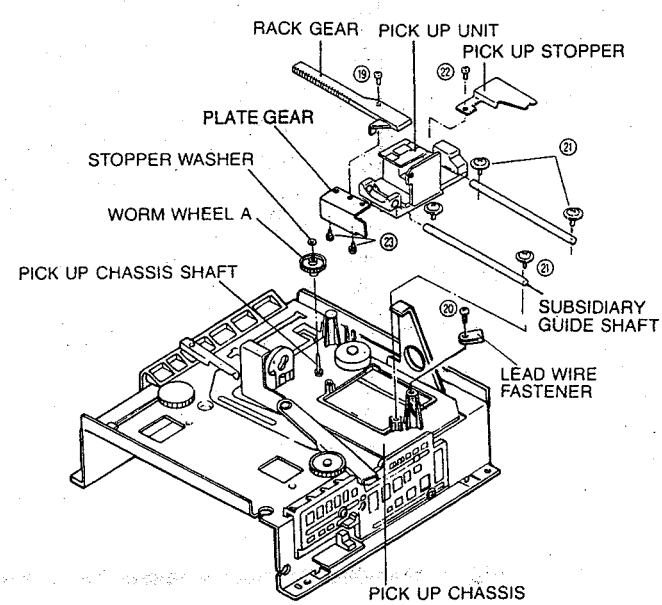
1) Remove screw ⑱ from the PICK UP CHASSIS bracket, fixed with the FEEDING MOTOR M2.
2) Pull out the FEEDING MOTOR M2 with the WORM GEAR through the upper hole of the PICK UP CHASSIS bracket to remove it as shown.



6. PICK UP REMOVAL

1) Pull up the STOPPER WASHER. Then pull out the WORM WHEEL A from the PICK UP CHASSIS shaft.
2) Remove the screw ⑲ from the RACK GEAR mounted on the PICK UP unit.
3) Remove the screw ⑳ and the LEAD WIRE FASTENER from the post of the PICK UP CHASSIS.
4) Remove screws ㉑ (4 pcs) on each of the GUIDE SHAFT and the SUBSIDIARY GUIDE SHAFT mounted on the dent portion of the PICK UP CHASSIS and then carefully pull out the PICK UP UNIT together with the GUIDE SHAFT so that both of the GUIDE SHAFT will not fall off.
5) Remove the screw ㉒ from the PICK UP STOPPER, fixing the PICK UP UNIT.
6) Remove screws ㉓ (2 pcs) and the PLATE GEAR fixing with the PICK UP UNIT.

Caution: In handling this pick-up without APC circuit, be sure that you wear a wrist band (1MΩ) to prevent accidents due to static discharges.



MECHANISM DESCRIPTION

1. Operation

Fig. 1 shows the position of the main chassis ass'y and the sub-chassis ass'y under initial condition (power ON, without magazine).

For lift motion at disc select, the cassette mechanism is divided into the main chassis ass'y and the sub-chassis ass'y, and function of each block is;

Main chassis ass'y ..... Magazine lock and eject

Sub-chassis ass'y ..... Disc tray open/close and disc chucking

A lift motor and a loading motor are attached to the main chassis as the driving source and power is transmitted from the main chassis to the sub-chassis through interlock of the following parts.

Operation	Main chassis ass'y	Sub-chassis ass'y
Lifting	Cam groove of guide R and L	Guide shaft
Disc tray open/close and chucking	Driving rack boss	Cam face of loading arm A

The main chassis ass'y is also equipped with switches to detect timing of the motors, and revolution, stopping, and direction shift of the motors.

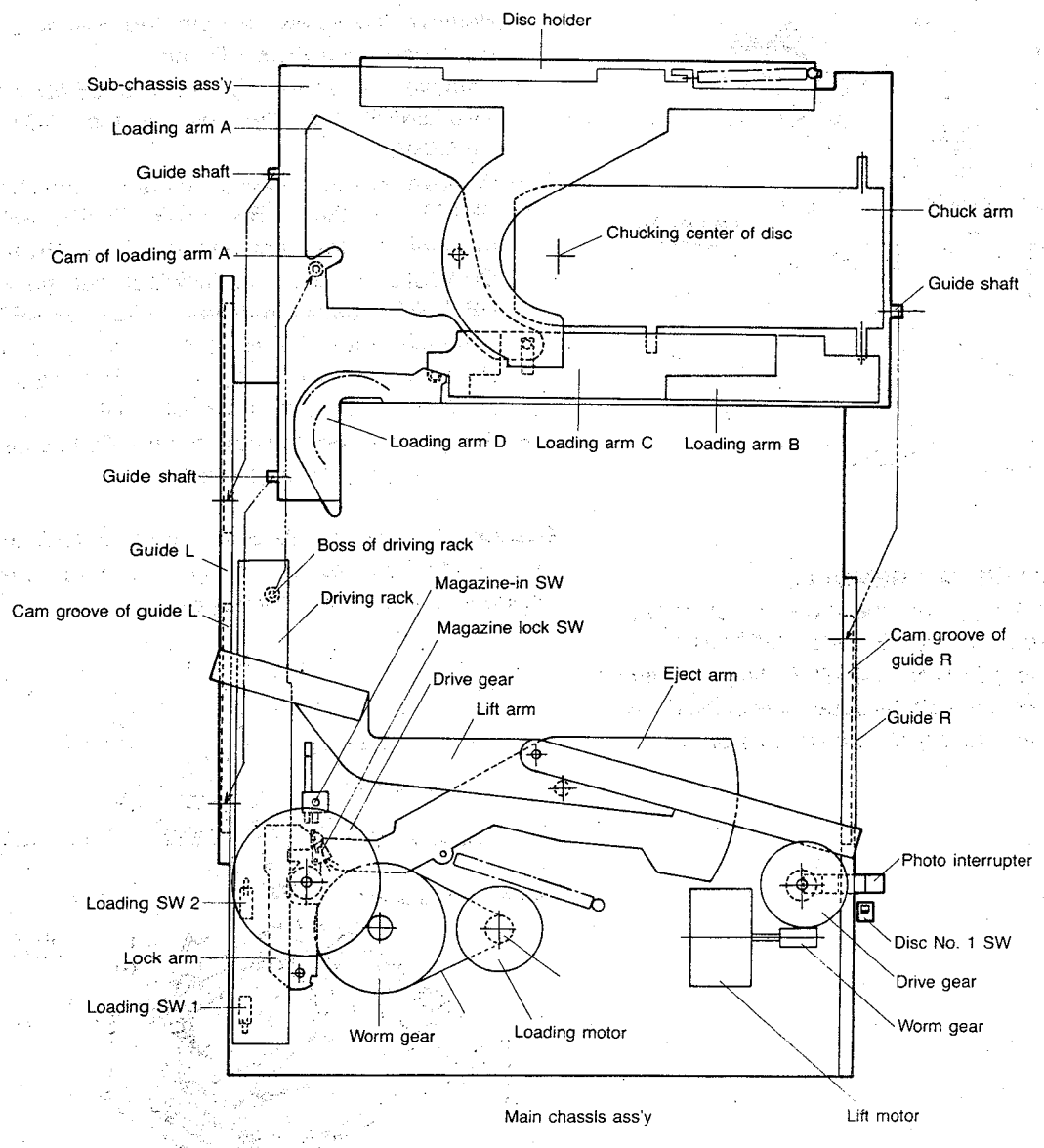


Fig. 1 Position of main chassis ass'y and sub-chassis ass'y under initial state

Fig. 2 shows a time chart of the cassette from insertion of a magazine to selection of disc No. 3 and to the end of eject. Referring now to Fig. 2, an outline description of the cassette mechanism appears in the following text.

Insert a magazine and turn ON the magazine lock switch and the magazine-in switch. Then the magazine is locked to the main chassis ass'y, the loading motor turns clockwise to open disc No. 1 tray, disc No. 1 is loaded, and the disc is chucked. (stop state)
Disc No. 1 is played when the play button is pressed under stop state. If any other disc than No. 1 is selected, No. 3 disc for instance, and the play button is pressed, however, the loading motor turns counter-clockwise and disc No. 1 tray is closed. Then the lift motor turns clockwise, the pulse is counted by the photo interrupter, and the sub-chassis ass'y is lowered to the point where the position of disc No. 3 is detected.

When the lift motion is complete, the loading motor turns clockwise to open disc No. 3 tray, disc No. 3 is loaded and chucked, and then is played.

If the eject button is pressed, the loading motor turns counter-clockwise, disc No. 3 tray is closed, and the magazine is unlocked. Then the magazine is discharged from the main chassis ass'y by spring force of the eject arm.
When the magazine lock switch is turned OFF, the loading motor reverses from counter-clockwise to clockwise direction. The revolution comes to a stop when loading switch 1 is turned ON while the main chassis ass'y is under initial state. Then the lift motor turns counter-clockwise to lift the sub-chassis ass'y to the position of disc No. 1 and the initial state is restored.

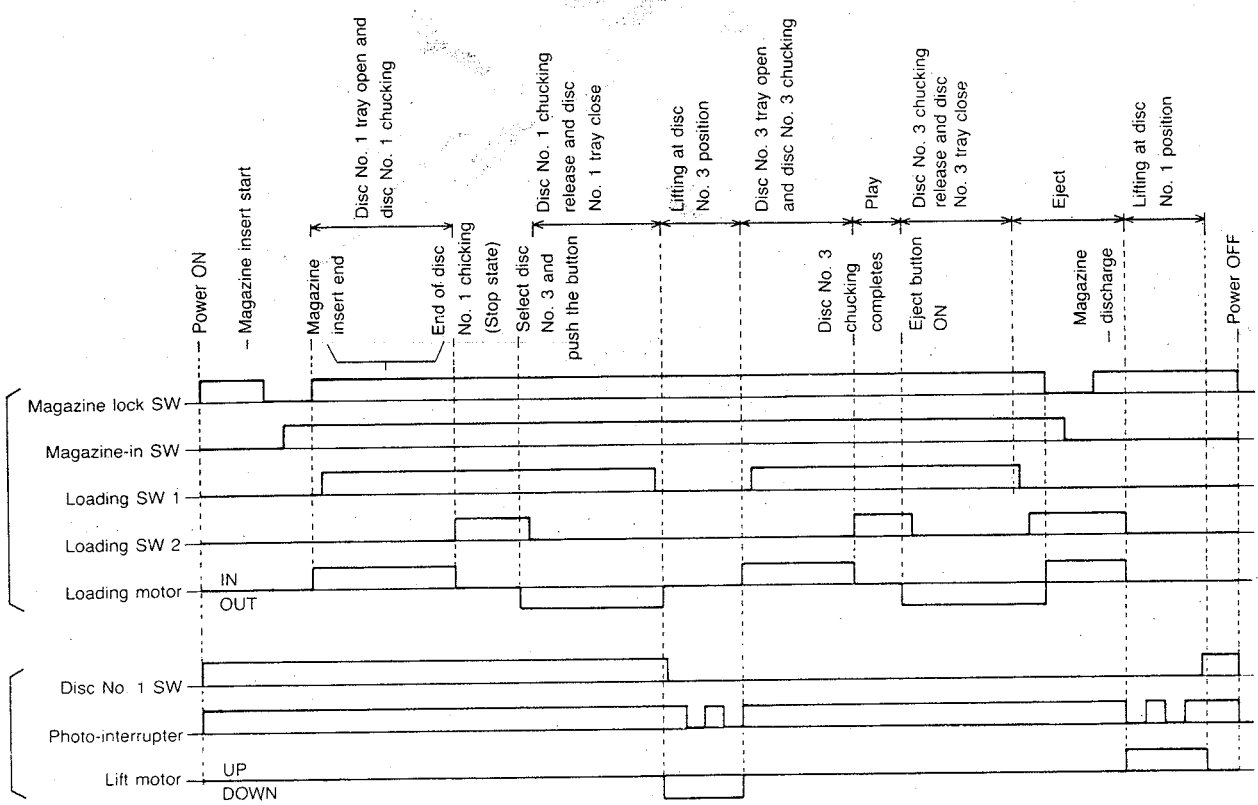


Fig. 2 Time chart from magazine insert to eject

Now follow detailed description of each motion.

1-1. Magazine lock

Fig. 3. shows the process from insertion of a magazine in arrow ① direction to the condition where the magazine is fixed to the main chassis ass'y.

During the process from power ON to magazine fixing, the cassette performs the following operations in sequence:

a. The magazine pushes the projection of the eject arm, which turns in arrow ② direction.

b. The magazine pushes the click of the lock arm in arrow ③ direction, the lock arm turns in arrow ④ direction, and the magazine lock switch is turned OFF.

c. The magazine pushes the click of the magazine-in switch in arrow ⑤ direction, and the magazine-in switch turns ON.

d. The click of the lock arm goes into the fixing dent of the magazine, and the lock arm turns in arrow ⑥ direction to turn ON the magazine lock switch.

e. Magazine locking is complete.

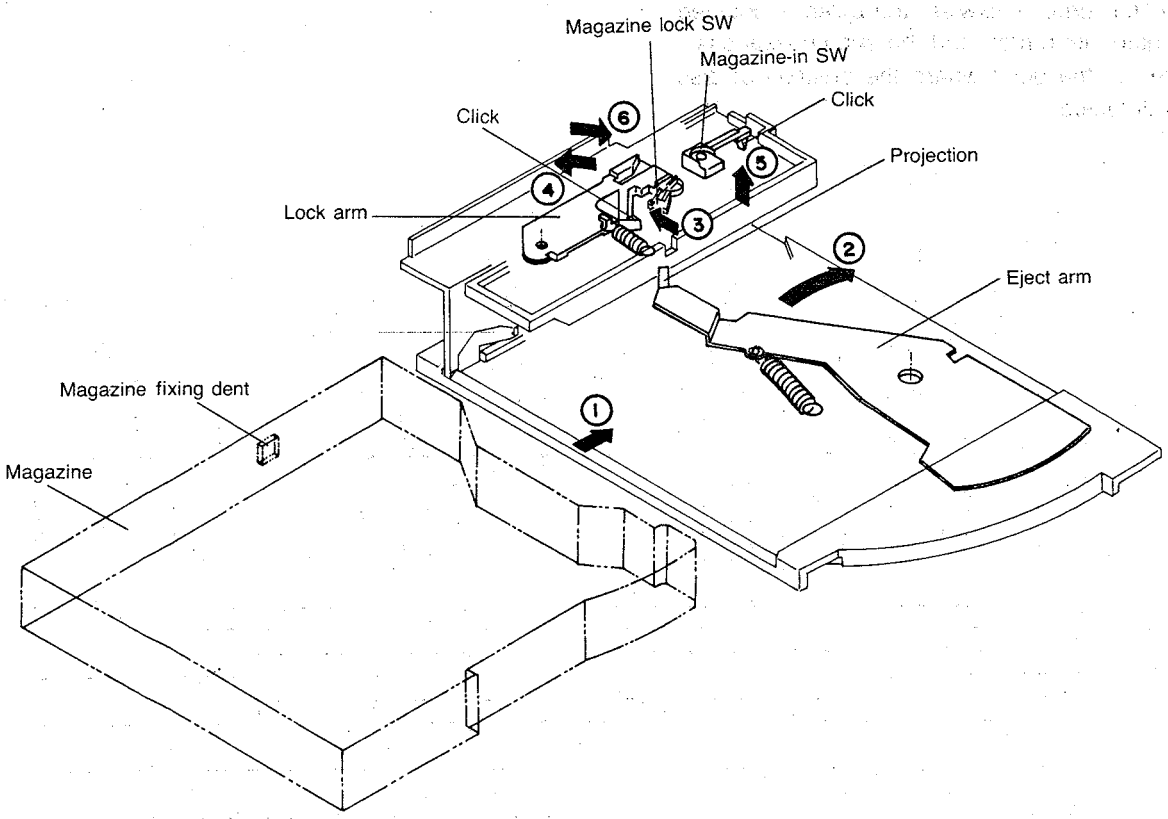


Fig. 3 Magazine locking

1-2. Disc tray open

Fig. 4 shows the process to open state of the disc tray.

a. The loading motor turns in arrow ⑦ direction.
b. The driving rack moves in arrow ⑧ direction through the motor pulley, belt, intermediate gear and driving gear.
c. The loading arm D turns in arrow ⑨ direction through the loading arms A, B, and C.
d. The top of the loading arm D pushes the end of the disc tray, which is then turned in arrow ⑩ direction.
e. The dent of the disc tray comes in contact with the disc tray positioner of the sub chassis.
f. Open motion of the disc tray is complete.

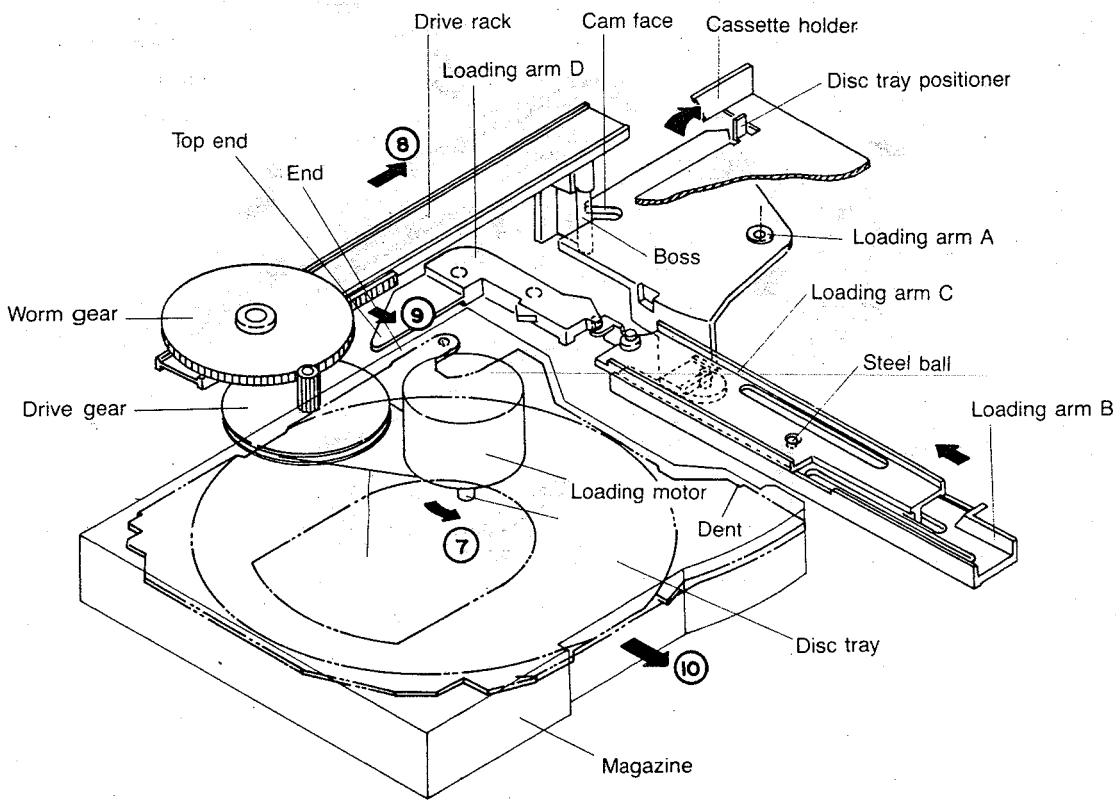


Fig. 4 Disc tray opening

1-3. Disc Chucking

Fig. 5 shows the process to chucking of the disc.

a. The driving rack moves in arrow ⑪ direction.
b. The loading arm B moves in arrow ⑫ direction.
c. The chuck arm turns in arrow ⑬ direction along the cam surface of loading arm B.
d. The disc starts chucking by the turntable and the chuck disc.
e. The projection of the disc holder is pushed by loading arm A and the disc holder moves in arrow ⑭ direction.
f. The projection of the driving rack turns ON loading switch 2 through the roller.
g. The loading motor stops turning.
h. Chucking motion of the disc is complete.

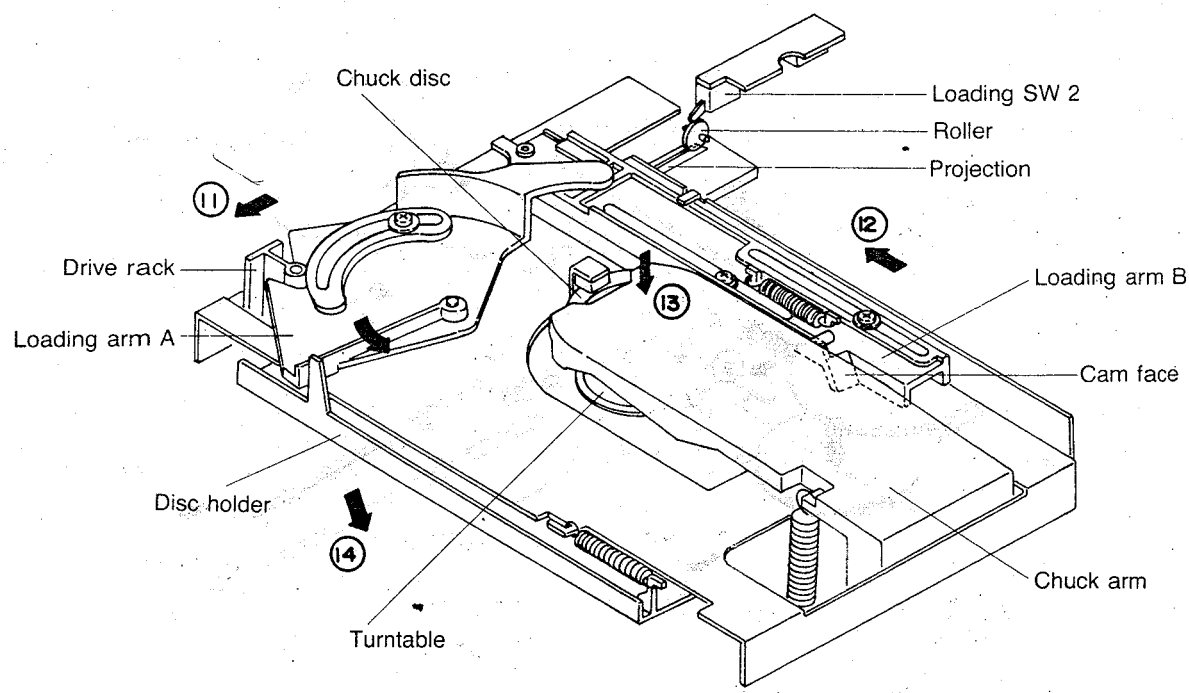


Fig. 5 Disc chucking

1-4. Ejection

Fig. 6 shows the process after closing of the disc tray to magazine eject.

a. Press the eject button.
b. Chucking of the disc is released.
c. The disc tray is closed.
d. The driving rack moves in arrow ⑮ direction.
e. The projection of the driving rack turns ON loading switch 2 and turns OFF loading switch 1 through the roller.
f. The boss of the driving rack pushes the cam groove of the lock arm, which is then moved in arrow ⑯ direction.
g. The click of the lock arm comes off the fixing dent of the magazine and magazine fixing is released.
h. The eject arm is turned in arrow ⑰ direction by spring force.
i. The magazine is pushed by the projection of the eject arm and is discharged from the cassette in arrow ⑱ direction.
j. When the magazine lock switch is turned OFF, the loading motor changes turning direction from arrow ⑲ to arrow ⑳.
k. The driving rack moves in arrow ㉑ direction.
l. Loading switch 1 is turned ON and switch 2 is turned OFF by the projection of the driving rack through the roller.
m. The loading motor stops turning.
n. The eject motion is complete.

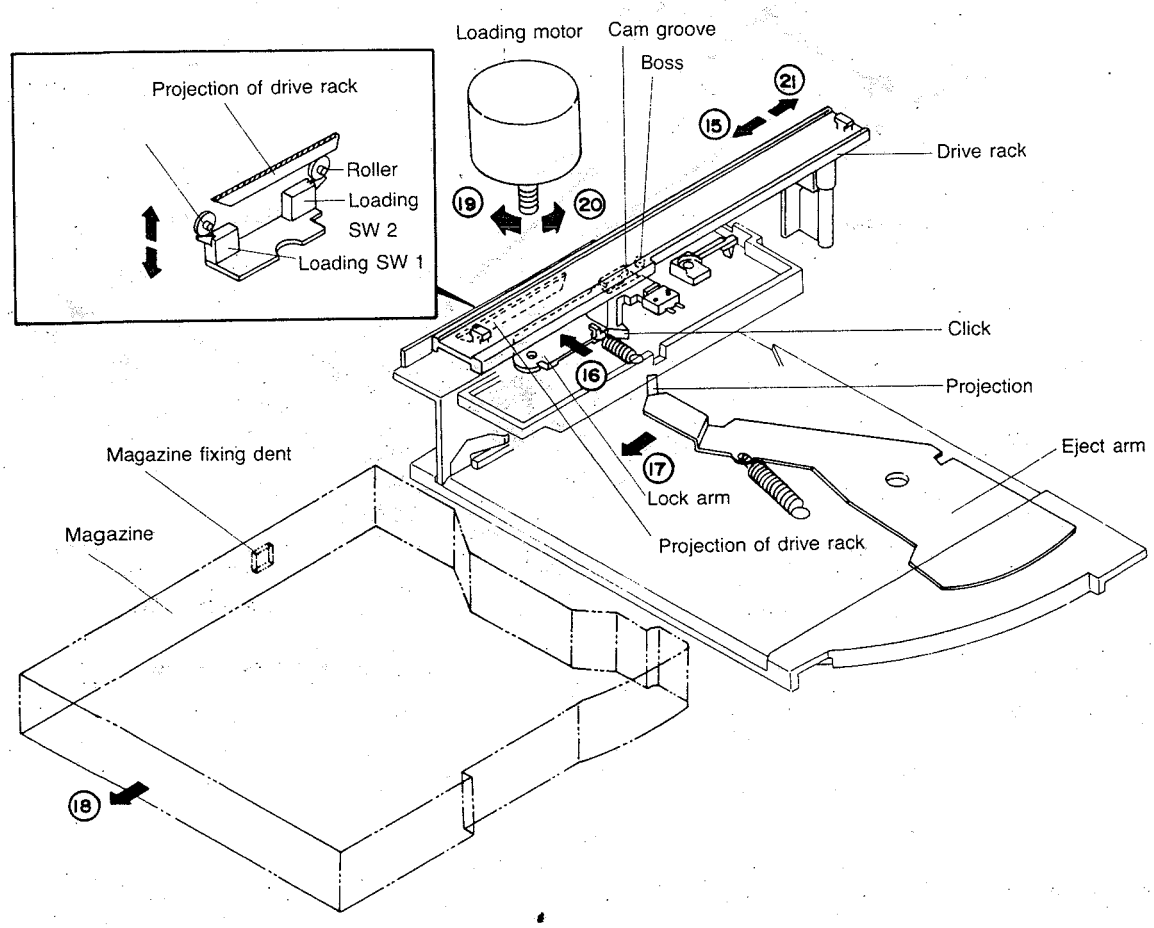


Fig. 6 Ejection

1-5. Lifting

Fig. 7 shows motion of the sub-chassis ass'y to the position of Disc No. 1.

a. The lift motor turns in arrow ㉒ direction.
b. The guide R moves in arrow ㉓ direction through the worm and drive gears and guide L moves in arrow ㉔ through the lift arm at the same time.
c. The disc No. 1 switch turns OFF.
d. Select disc position is by the photo interrupter through the square detectio hole of the guide R.
e. The lift motor stops turning.
f. The lifting motion completes.

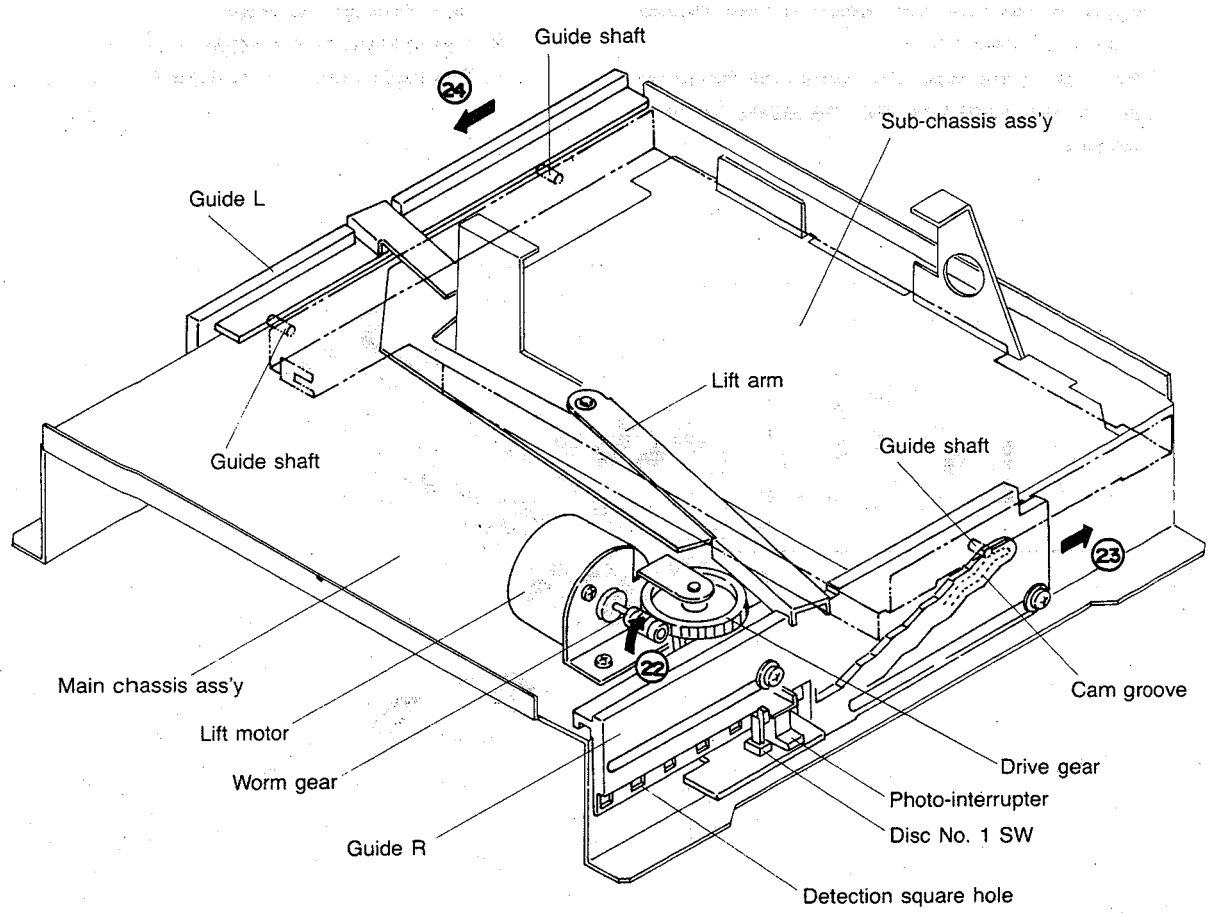


Fig. 7 Lifting

2. Disassembly procedure

2-1. Removing the sub-chassis ass'y

1) Make sure that the loading arm A is at the position of the continuous line shown is Fig. 1 (initial state). If the arm is at a position other than the initial stage (the position of the alternate long and two short dashes line for example.) turn the loading motor in arrow ① direction until loading arm A comes to the position of the initial state.

2) Remove the stepped screws 1 and 2. Then keep turing the lift motor in arrow ② direction to the point where the dismount grooves of guide R and L come to the dismount groove of the main chassis.
(Guide R moves in arrow ③ direction and guide L in arrow ④ direction.)

3) Hold up the sub-chassis ass'y in arrow ⑤ direction. Then it can be taken off the main chassis ass'y.

To re-assemble the sub-chassis ass'y, reverse the disassembly procedure.

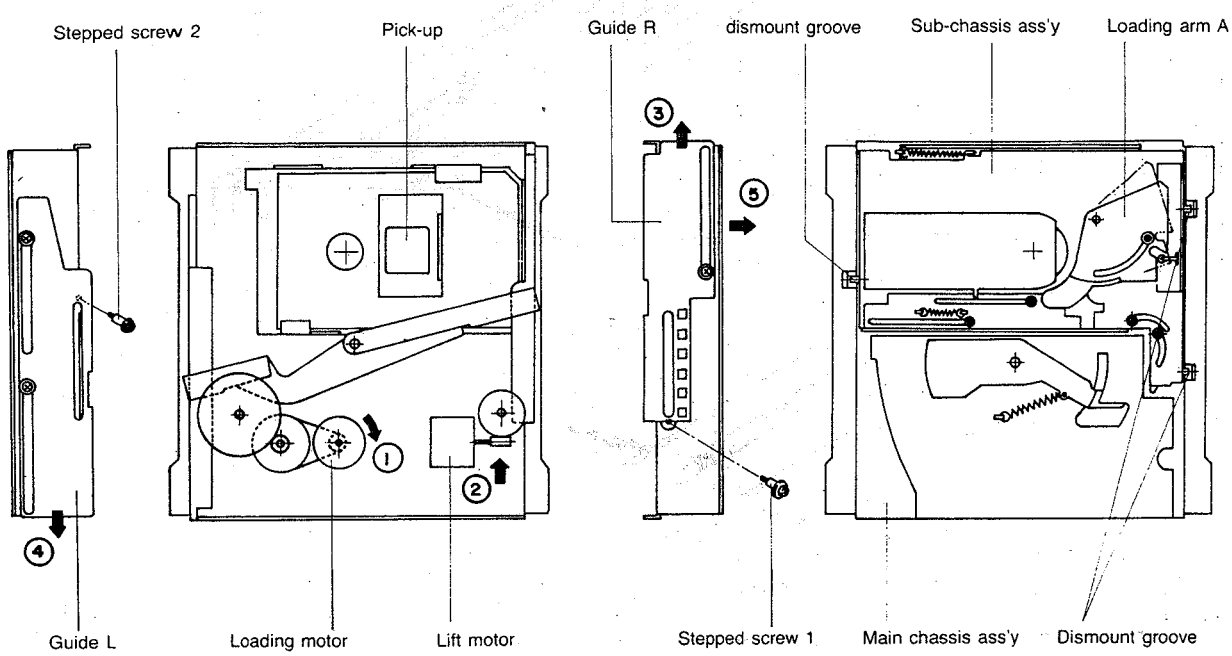


Fig. 1 Removing the sub-chassis

2-2. Removing the loading arms B and C

1) After removing the stepped screws, push loading arms B and C in arrow ⑥ direction and slide it to the position where it can be taken off the sub-chassis.
2) Remove loading arms B and C together in arrow ⑦ direction while keeping the loading springs attached. (Be careful not to misplace the steel ball.)
3) Tilt loading arm B as illustrated. Then remove the hook of the loading spring in arrow ⑧ direction.

To re-assemble loading arms B and C, reverse the above procedure.

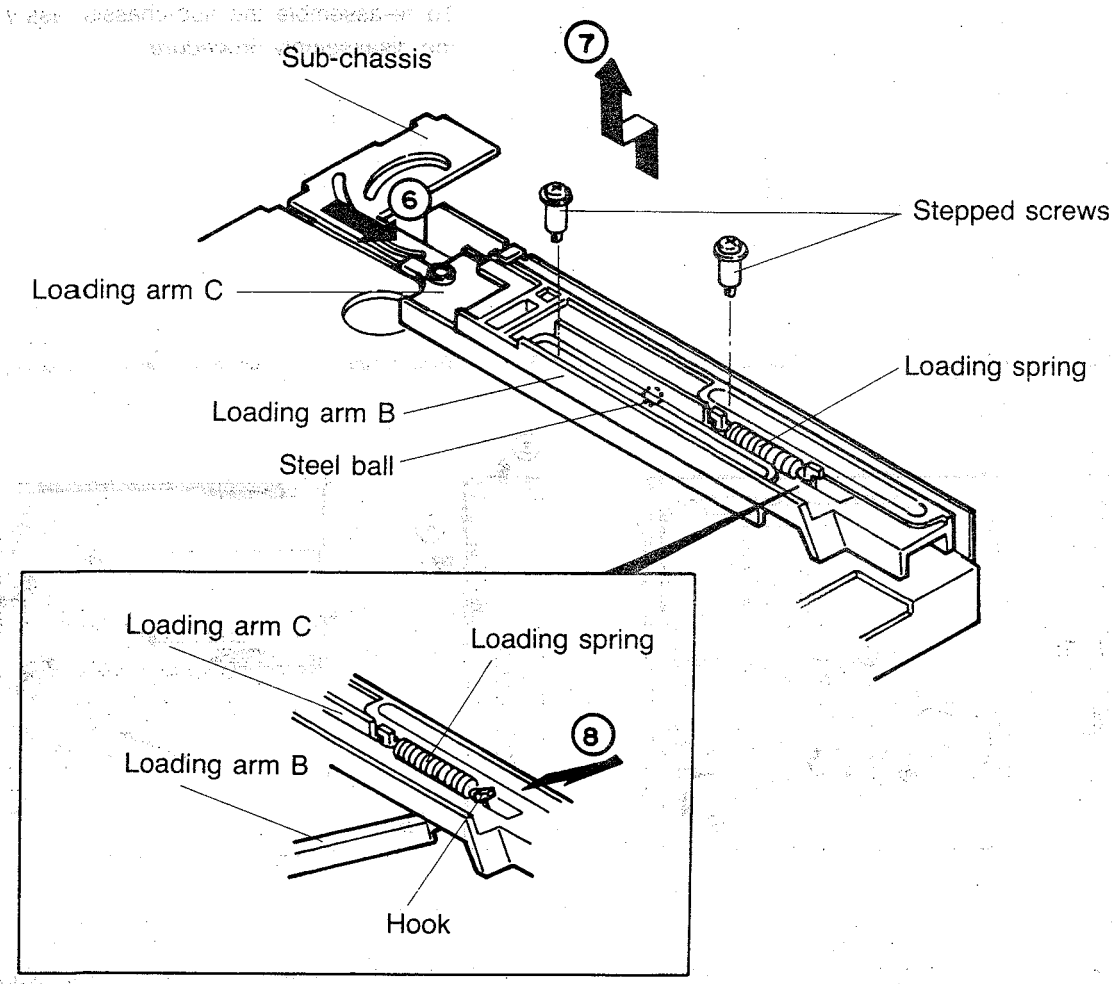


Fig. 2 Removing the loading arms B and C

2-3. Remove the disc holder

Remove the disc holder in arrow ⑩ direction while pushing the click of the cassette holder softly in arrow ⑨ direction with tweezers. To attach the disc holder, insert it in arrow ⑪ direction.

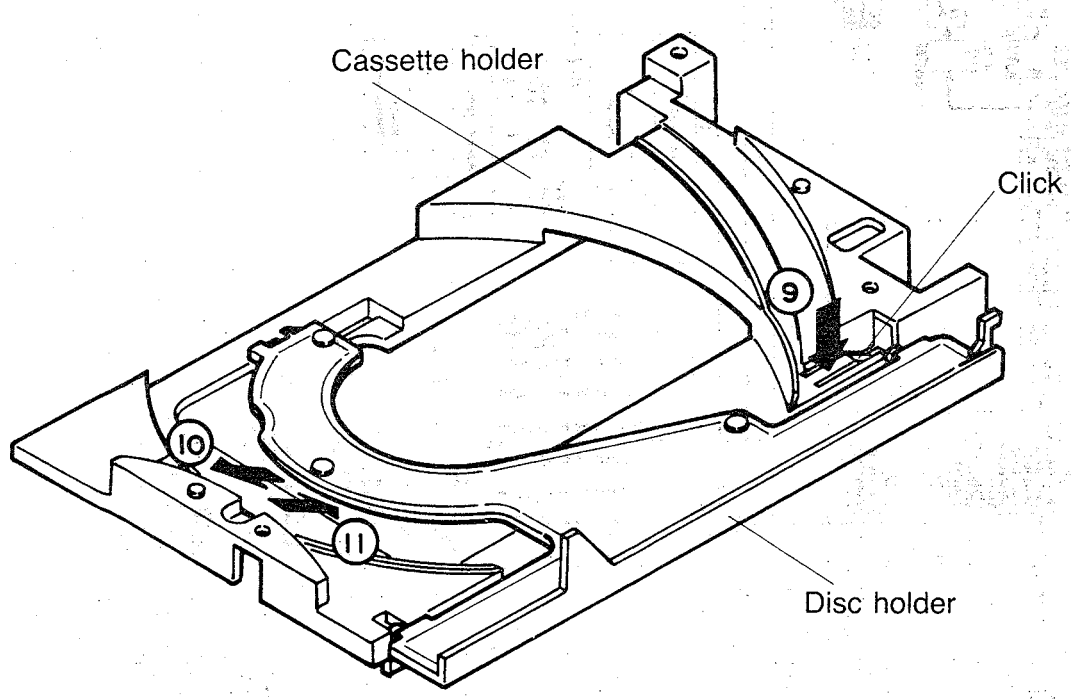
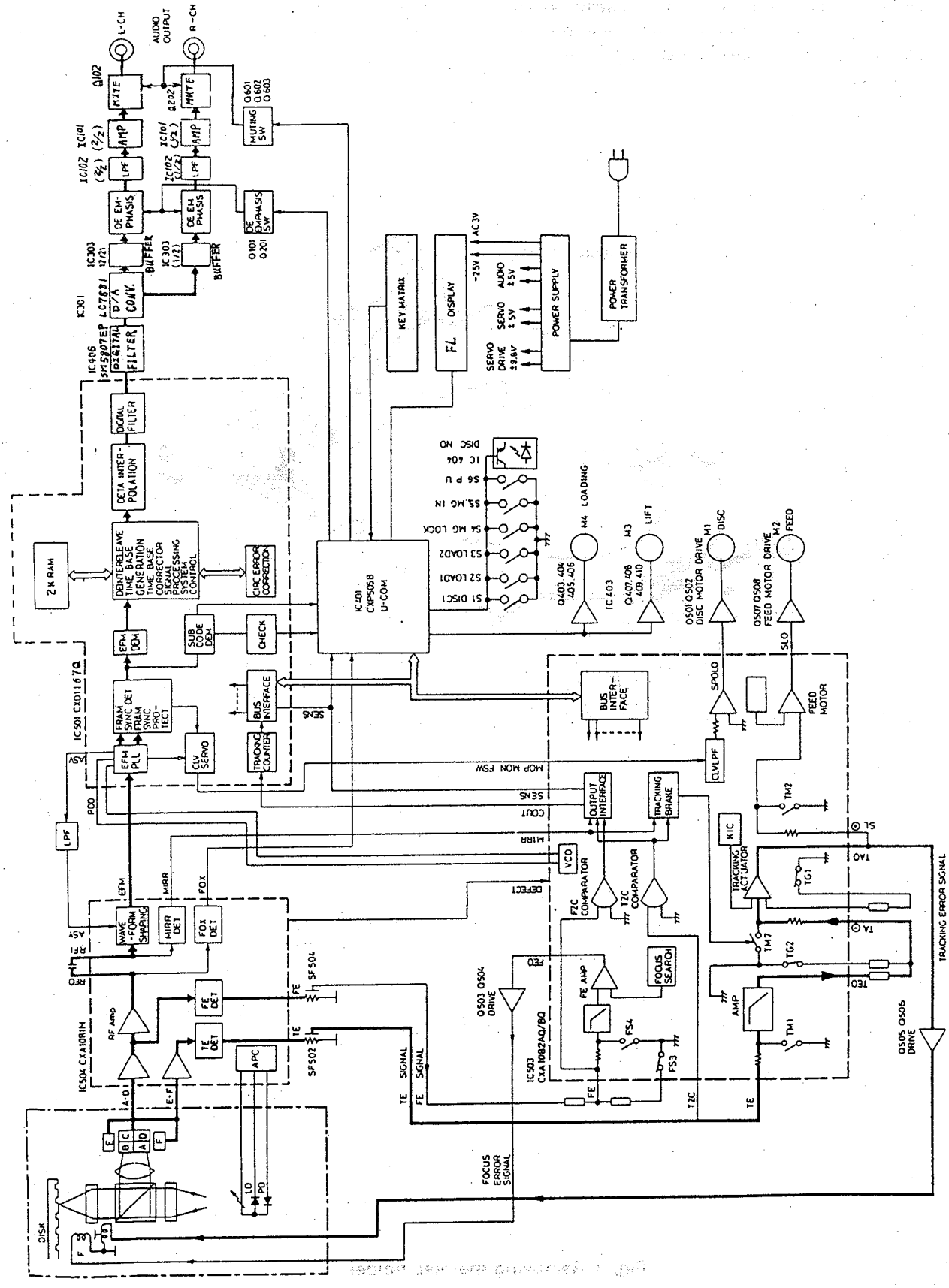
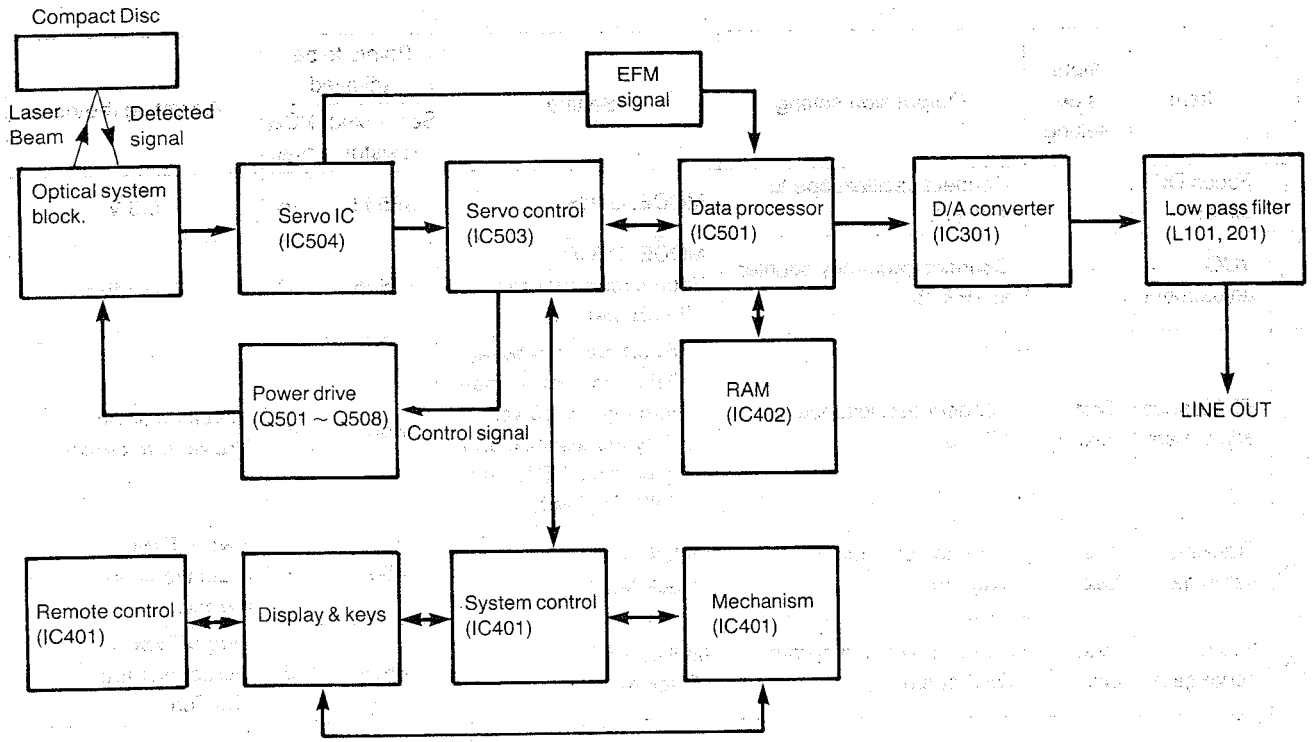


Fig. 3 Removing the disc holder

BLOCK DIAGRAM



CIRCUIT DESCRIPTION



The system configuration of this CD player is shown in the above figure. The general description of the operation in the state of play for this system is represented as follows;

At first, the signal detected from the disc with a three-beam laser pick-up is input to pick-up servo IC(IC504). Analog addition/subtractions processing is executed to output EFM (Eight to Fourteen Modulation) signals containing audio information along with synchronous clock, focus error signal, and tracking error signals. Then, servo control IC(IC503) inputs EFM signals so as to output data for phase corrections. Further, it outputs synchronous clock extracted from EFM signal.

Data processing IC(IC501) inputs these two signals, executes digital processing for EFM de-modulation, deinterleave, error correction, and then, outputs audio data containing audio information only.

This digital data is converted to analog data by IC(IC301) for D/A conversion.

Finally, after low-pass filters (L101, L201) exclude the components outside of the band, voice signal is output to line-out.

After the focus error signal and the tracking error signal, generated by pick-up servo IC, are subject to phase compensation, they are input to power drive Q501 ~ Q508 for power amplification. Moreover, by providing this output to each actuator for pick-up focus and tracking, laser beam position is controlled.

The constant linear speed control signal and the pick-up position control signal, generated by servo control IC, are processed through the low-pass filter, and then, input to power drive IC for power amplification.

By driving the individual disc motor and the pick-up feed motor by these outputs, the disc rotation (RPM) is controlled to enable the linear speed to be constant, resulting in exact control of pick-up position.

Meanwhile, IC(IC401) controls the CD player with the information input from each key. In other words, it processes track detection, and further, controls the functions for forward/reverse quick feed motion, play/pause, single track/all tracks repeat performance, and programmable performance. In addition, CD player status and track/in-process time are indicated on the display.

Cassette control (Magazine loading/unloading)

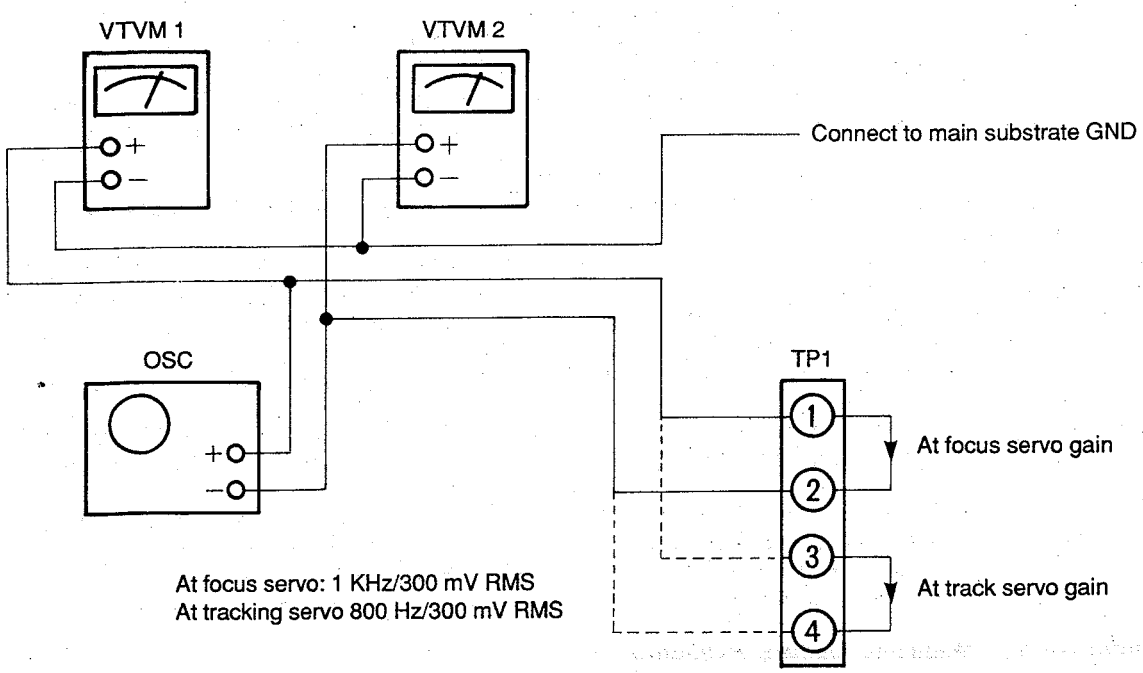
IC(401) is used for lift-up/lift-down of the cassette (disc selection), detection of cassette mode, and control of the loading/lifting motor.

In the remote control circuit, signals demodulated by the receiver are decoded by IC(401), and the corresponding keys are controled.

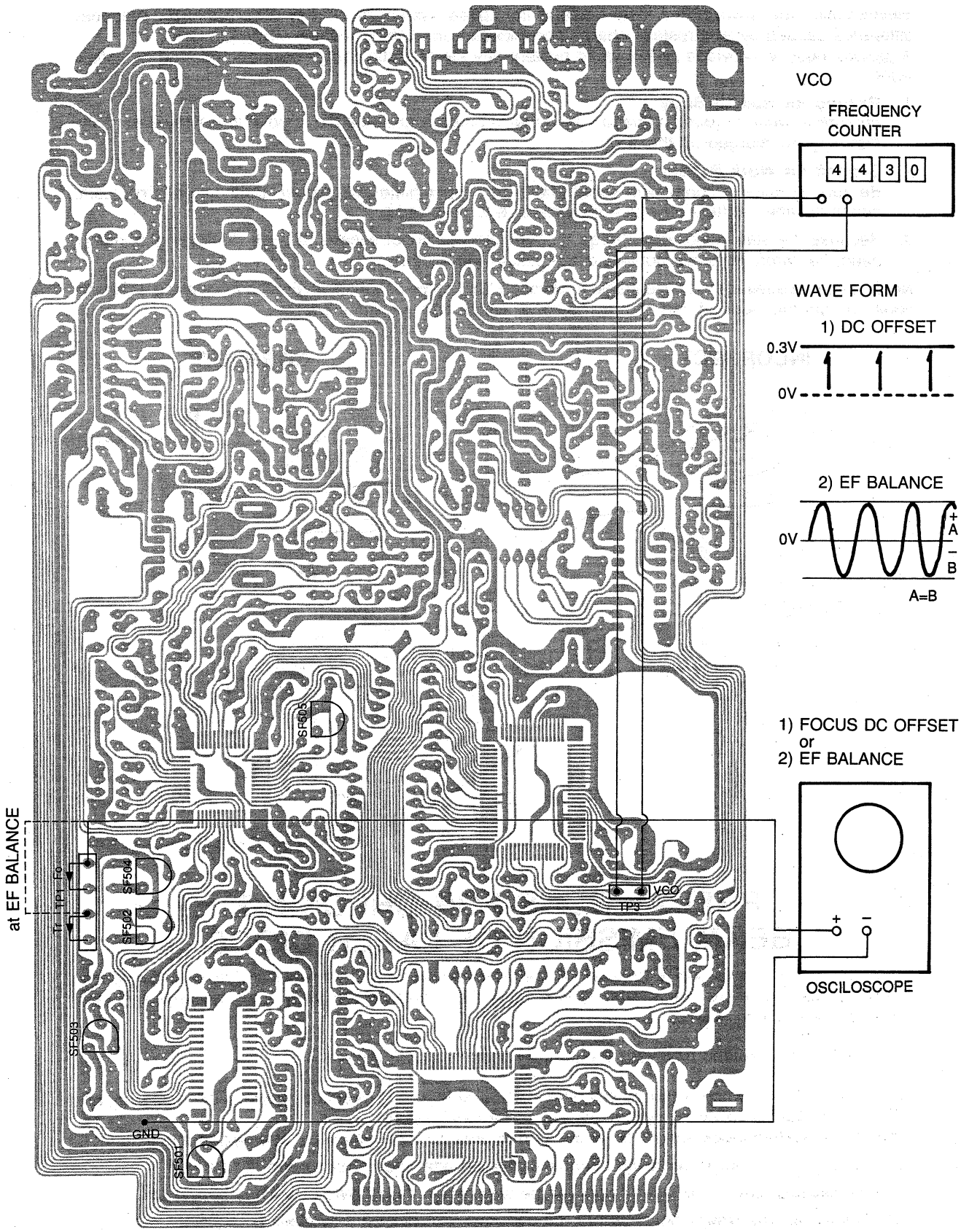
ADJUSTMENT PROCEDURE

	Item	Input side setting	Output side setting	Setting	Points to be adjusted		Adjusting method
					Semi-fixed resistor	PCB map	
1	Focus DC offset		Connect oscilloscope to TP1 (1).	MODE: STOP	SF503	1-B	0.3 V
2	VCO adjustment		Connect frequency counter to TP3 (2)	MODE: STOP Short circuit between TP2 (2) and (3).	SF505	2-C	4.43 MHz
3	EF balance adjustment	Test disc	Connect oscilloscope to TP1 (3)	(1) Short circuit between TP4 and TP3 (1) then turn ON the power (2) Play the test disc and short circuit TP5 and TP2 (2) (GND).	SF501	1-A	Tracking error, Wave form center
4	Tracking servo gain	Test disc	Refer to connection diagram 1	MODE: PLY (Track No. 1)	SF502	1-B	Two VTVM indications are identical
5	Focus servo gain	Test disc	See connection diagram 1. OSC output	MODE: PLAY (Track No. 1)	SF504	1-B	Two VTVM indications are identical

Connection diagram 1: Servo gain adjustment



EQUIPMENT CONNECTIONS



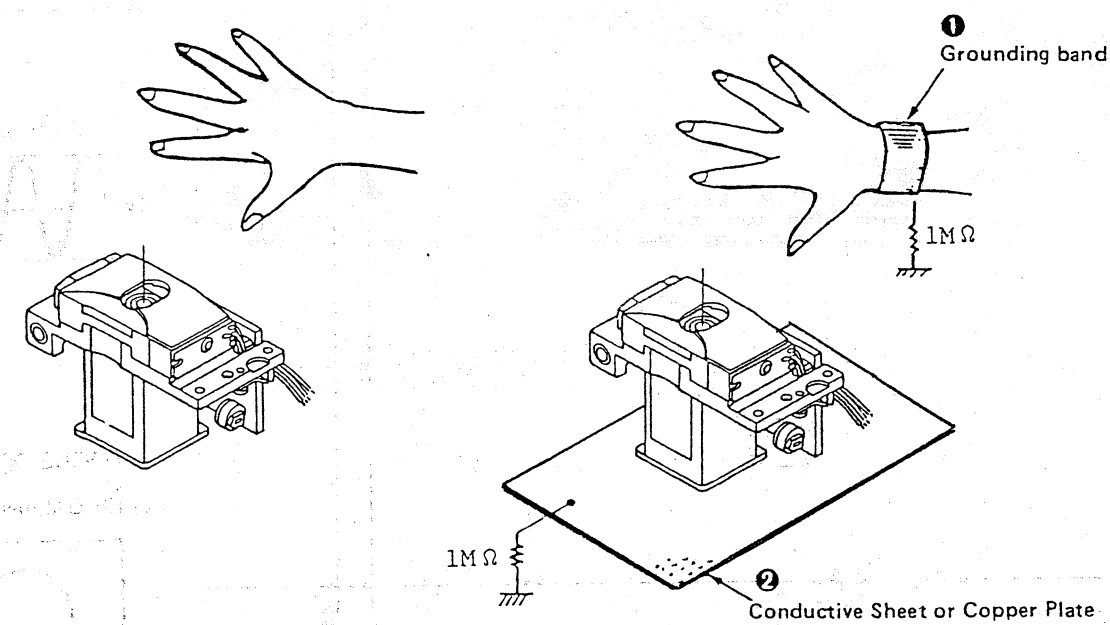
INSTRUCTION FOR HANDLING OPTICAL SYSTEM BLOCK PICKUP

Electrostatic breakdown of the laser diode in the optical system block may occur due to a potential difference caused by electrostatic charge accumulated on clothing, human body, etc.
A ground must be provided as follows to prevent any electrostatic charge during unpacking or repair work.

1. **Ground for Human Body**
   Be sure to wear a grounding band (1MΩ) that is properly grounded to remove any static electricity that may be charged on the body.
2. **Ground for Work Bench**
   Be sure to place a conductive sheet (1MΩ) or copper plate with proper grounding on the work bench or other surface on which the pickup is to be placed.
3. Because the static electricity charge on the clothing will not escape through the body grounding band, be careful to avoid contact of the pickup with clothing.

Note: Lasen diodes are so susceptible to damage from static electricity that even if a static discharge does not ruin the diode, it can shorten its life or cause it to work improperly.

INCORRECT **CORRECT**



PRECAUTIONS FOR CHECKING BEAM EMISSION OF LASER DIODE

This laser beam of this unit is focused on the reflecting surface of the objective lens in the optical system block. Therefore, keep your eyes at least 12 inches (30cm) away from the objective lens when the laser diode is ON.

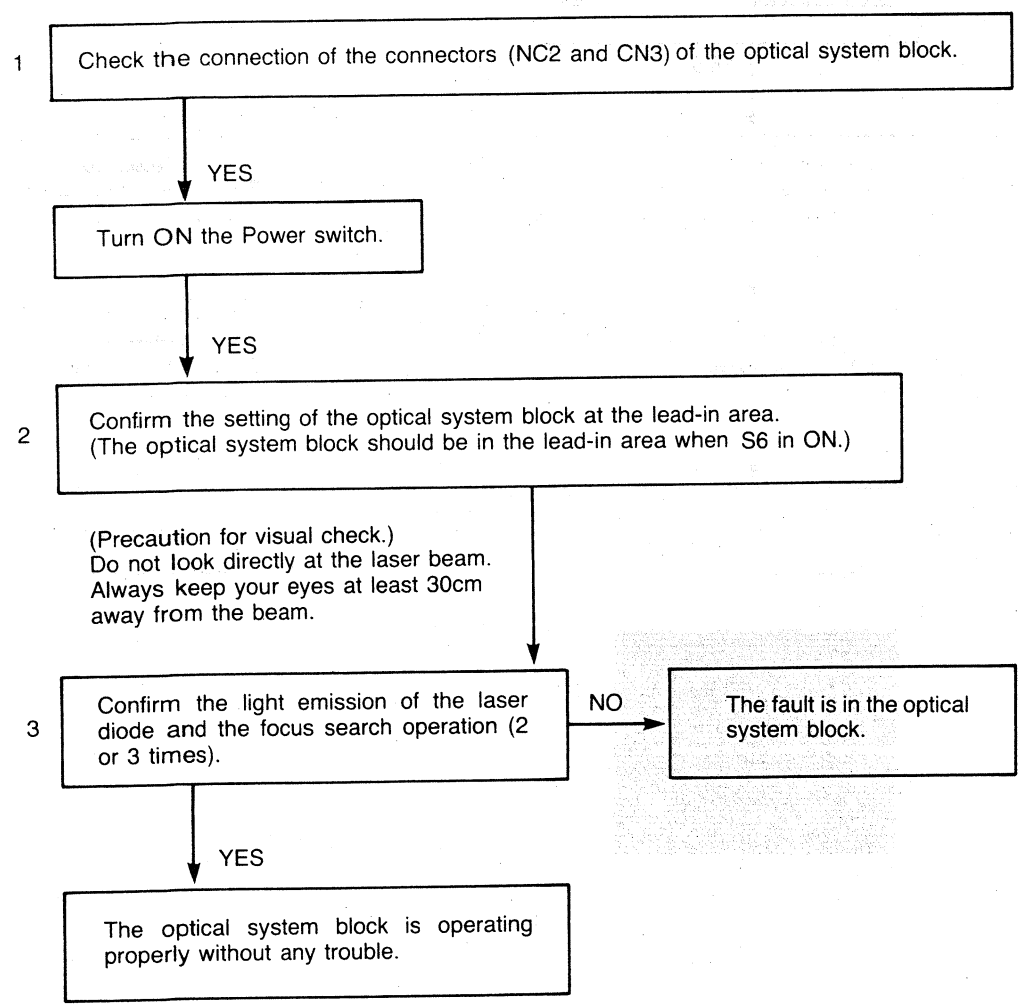
[Operation Check Method for Laser Diode and Focus Search Function]

When the POWER switch is turned ON after the chucking arm is removed, observe the objective lens and confirm that the following operations are performed properly.
(The optical system block should be at the lead-in area position when it is checked at this time.)

(1) This disc table should be at the innermost position after the chucking arm is removed.
(2) The diffused light of the laser beam can be seen when the POWER switch is turned ON.
(3) Vertical (up and down) movement of the objective lens (2 or 3 times) will take place.

TROUBLESHOOTING OF OPTICAL SYSTEM BLOCK (PICKUP)

Apply the following procedure for troubleshooting to check whether the trouble is in the optical system block.



TROUBLESHOOTING GUIDES

Pick-up moves most inner place when the power is on.

NO

Check voltage as follows.
IC504 at pin 1, 4, 5, 8 ..... −5V
Q507 collector ..... +10V
Q508 collector ..... −10V

NO

Defective power supply circuit.

YES

YES

Check if S6 (PICK UP SW.) is activated.

NO

Defective S6 (Pick-up switch).

YES

Check if S5 (TRAY IN SW.) is activated.

NO

Defective S5 (Tray in switch).

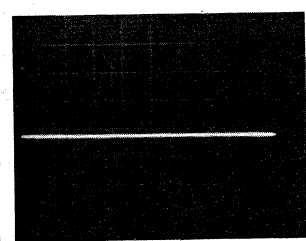
YES

Focus seach works correctly.

NO

YES

Check if output pulse signal at pin 51, 52, 53 of IC401 (Microcomputer).



NO

Defective IC401.

YES

Check laser power output. It is about 0.25 – 0.3 mW.

NO

Check if laser power supply circuit works correctly.

NO

Defective laser power supply circuit.

YES

YES

Defective pick-up.

A

B

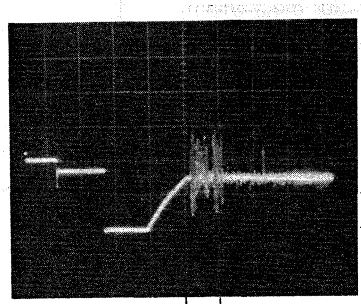
A

B

YES

Check the output signal at pin 5 of IC503.
Check the output signal at pin 8 of IC403

NO → Defective IC503.



IC503 FOCUS SEARCH SIGNAL

YES

Focus coil (Actuator) moves up and down correctly.

NO → Defective Pick-up.

YES

Disc motor rotates correctly.

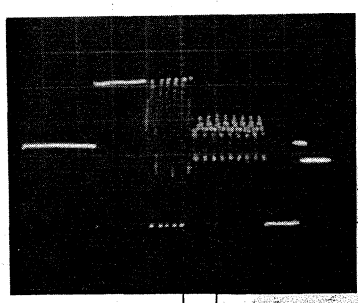
NO

YES

A'

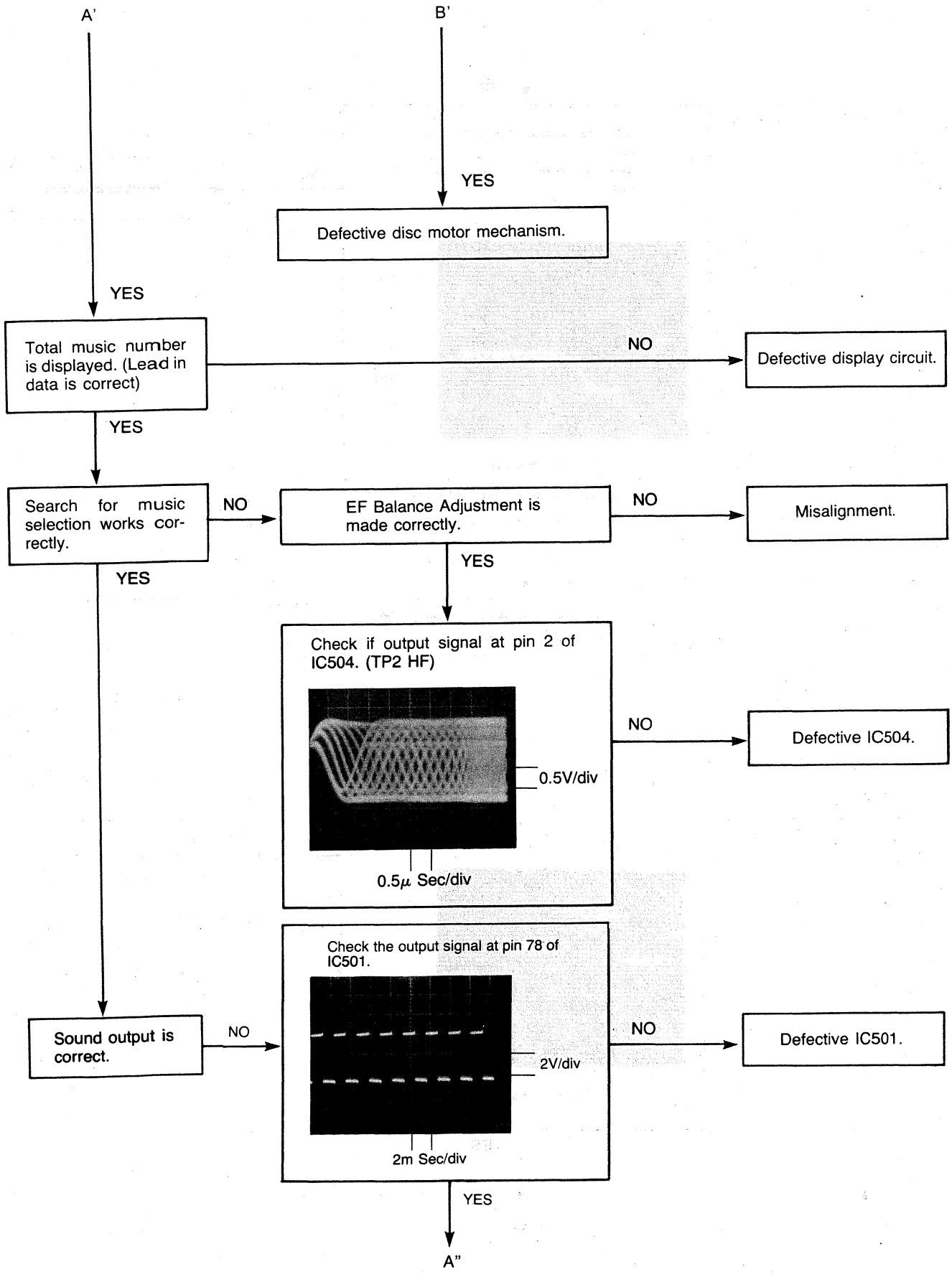
Check the output signal at pin 39 of IC503.
Check the output signal at Q501,502 collector.

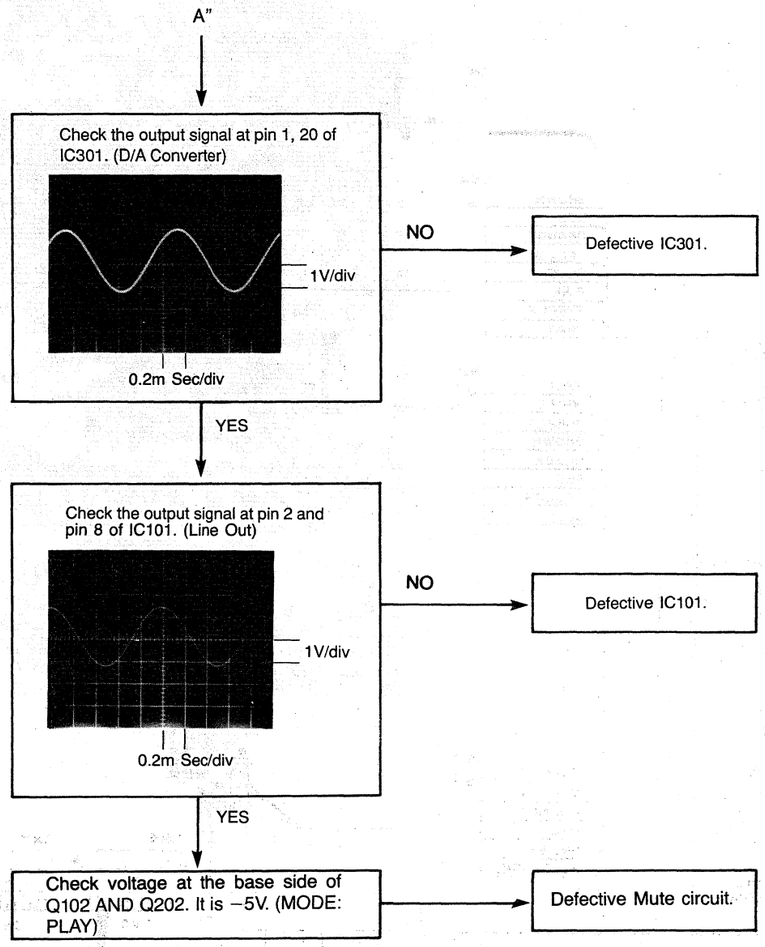
NO → Defective IC503 or Q501 or Q502



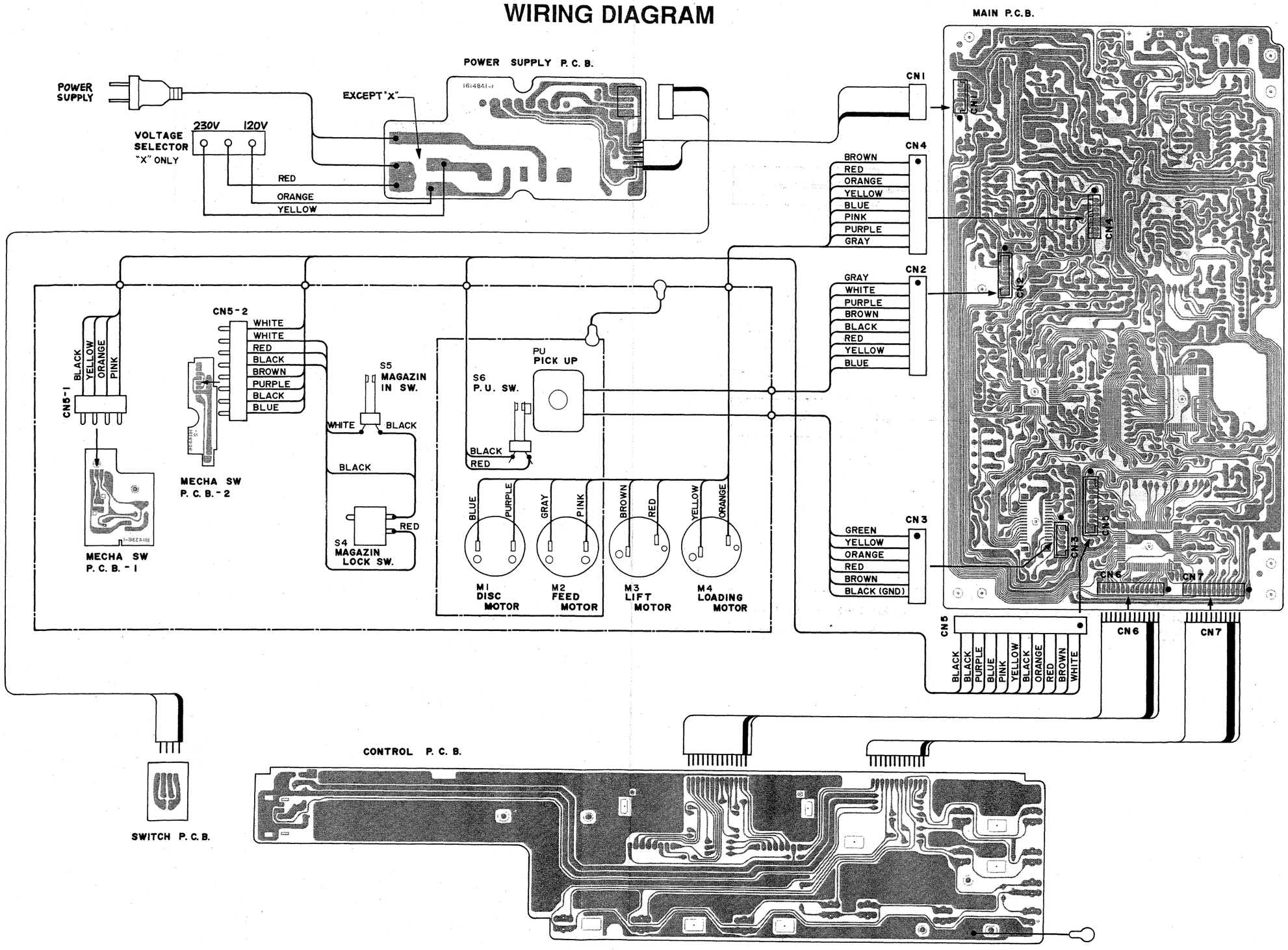
YES

B'

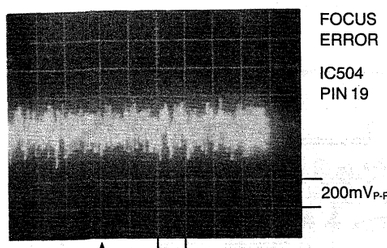

A'
B'
YES
Defective disc motor mechanism.
YES
Total music number is displayed. (Lead in data is correct)
NO
Defective display circuit.
YES
Search for music selection works correctly.
NO
EF Balance Adjustment is made correctly.
NO
Misalignment.
YES
YES
Check if output signal at pin 2 of IC504. (TP2 HF)
0.5V/div
0.5μ Sec/div
NO
Defective IC504.
Sound output is correct.
NO
Check the output signal at pin 78 of IC501.
2V/div
2m Sec/div
NO
Defective IC501.
YES
A"


A"
Check the output signal at pin 1, 20 of IC301. (D/A Converter)
1V/div
0.2m Sec/div
NO
Defective IC301.
YES
Check the output signal at pin 2 and pin 8 of IC101. (Line Out)
1V/div
0.2m Sec/div
NO
Defective IC101.
YES
Check voltage at the base side of Q102 AND Q202. It is −5V. (MODE: PLAY)
Defective Mute circuit.

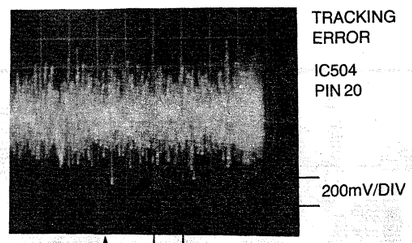
WIRING DIAGRAM



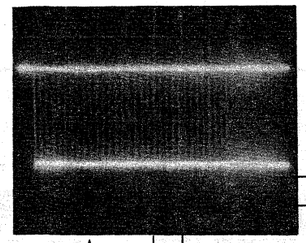
WAVE FORM INFORMATION



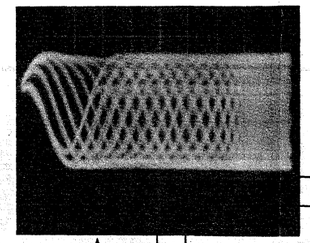
FOCUS ERROR
IC504 PIN 19
200mV$_{P-P}$/DIV
1mS/DIV



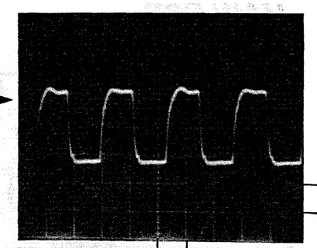
TRACKING ERROR
IC504 PIN 20
200mV/DIV
1ms/DIV



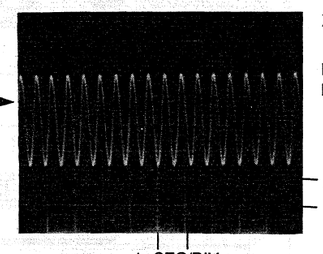
EFM
IC504 PIN 27
1V/DIV
1μS/DIV



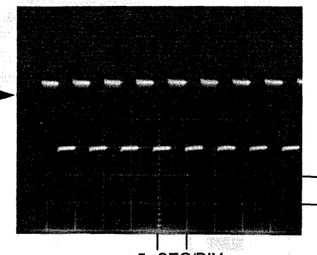
EYE PATTERN
IC504 PIN2
500mV/DIV
5μS/DIV



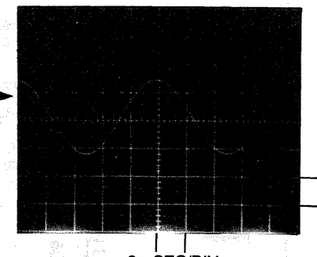
4 MCK CLOCK
IC501 PIN 51
2V/DIN
1μS/DIN



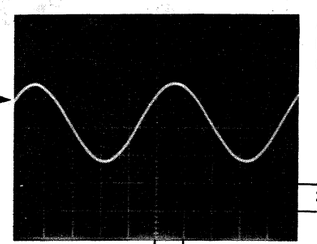
X'TAL
IC501 PIN 54
1V/DIV
1μSEC/DIV



LEN CONT
IC301 PIN 6
2V/DIV
5μSEC/DIV



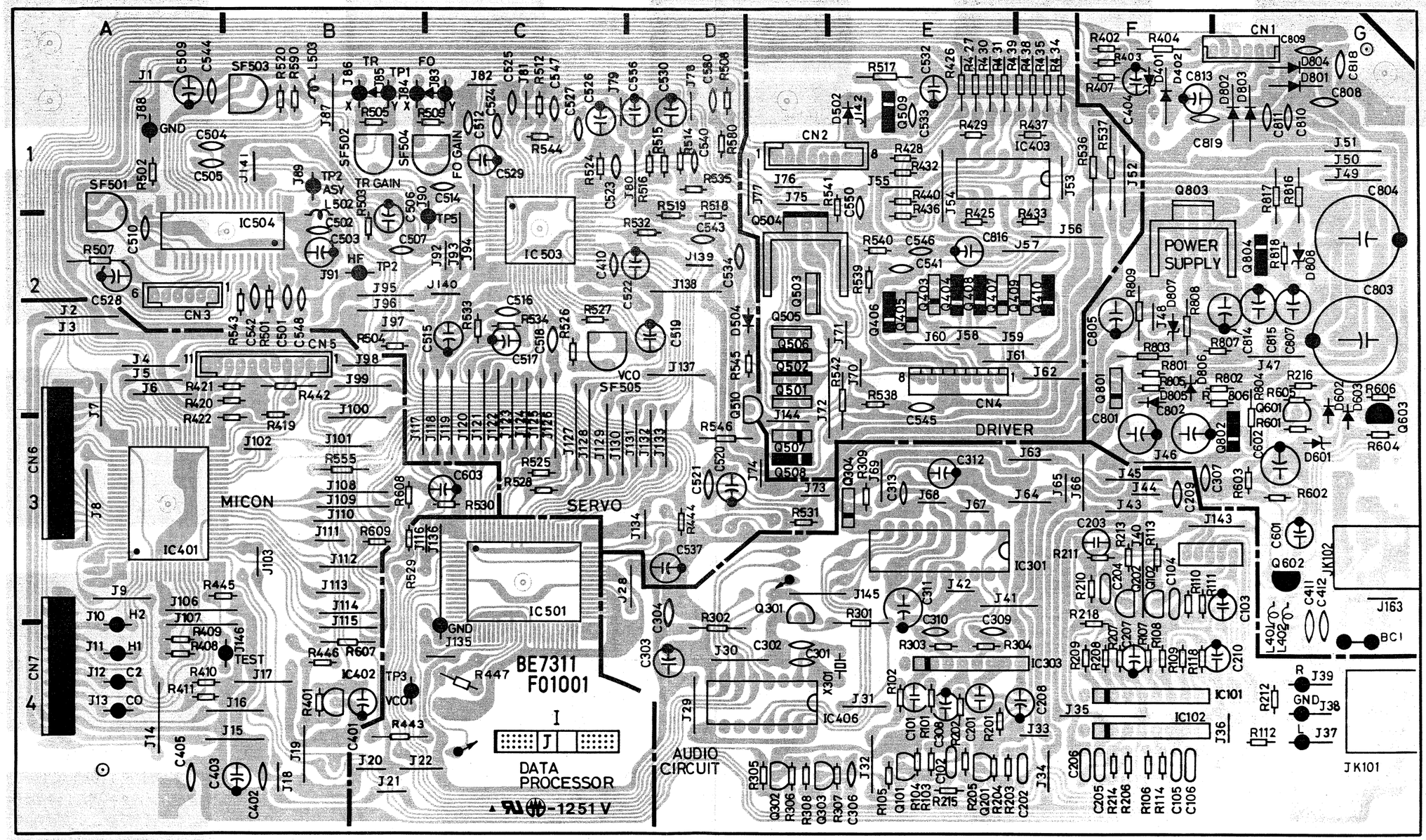
AUDIO
D/A CONV OUTPUT
L. Rch
IC301 PIN 9
2V/DIV
2m SEC/DIV



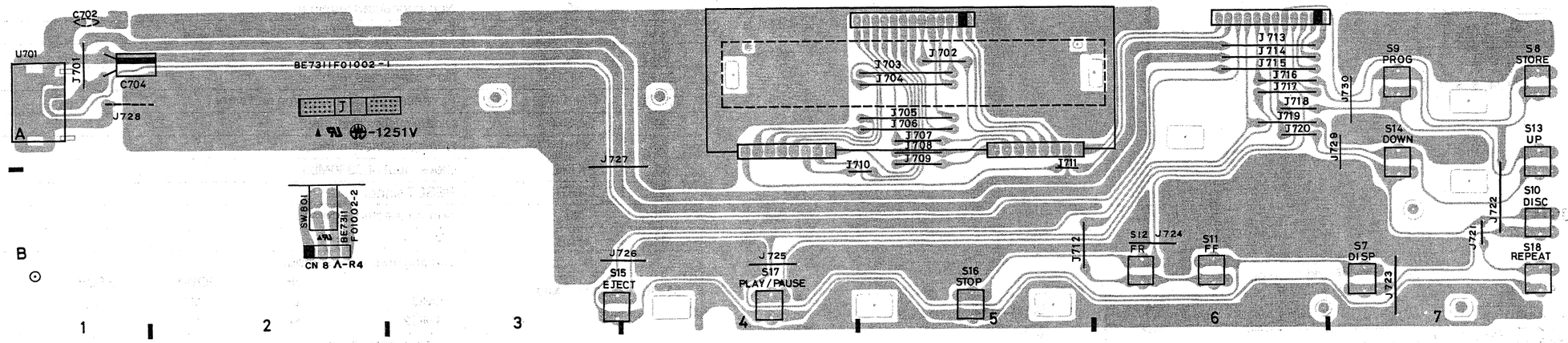
AUDIO LINE OUTPUT
2V/DIV
2m SEC/DIV

PRINTED CIRCUIT BOARD

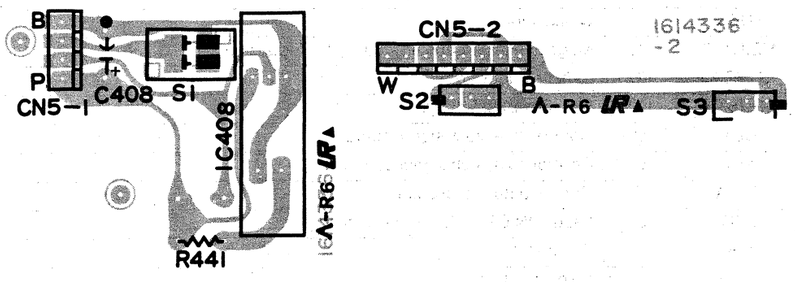
MAIN PCB



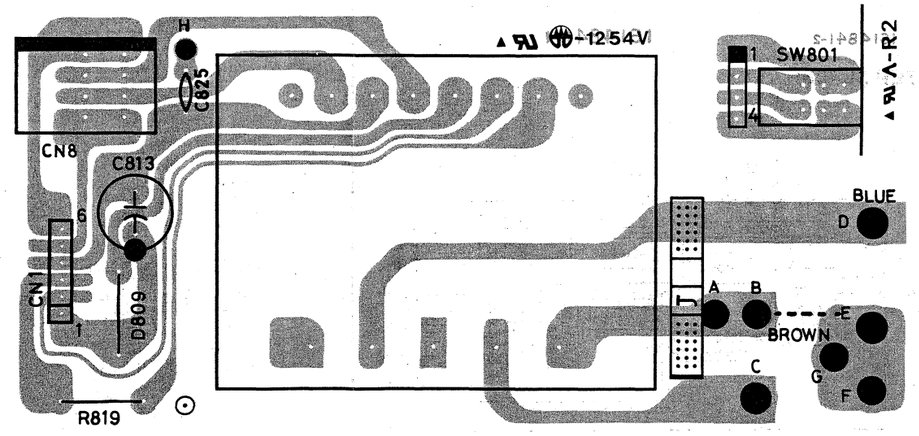
CONTROL PCB



MECHANICAL SWITCH PCB

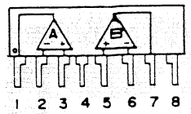


POWER SUPPLY PCB

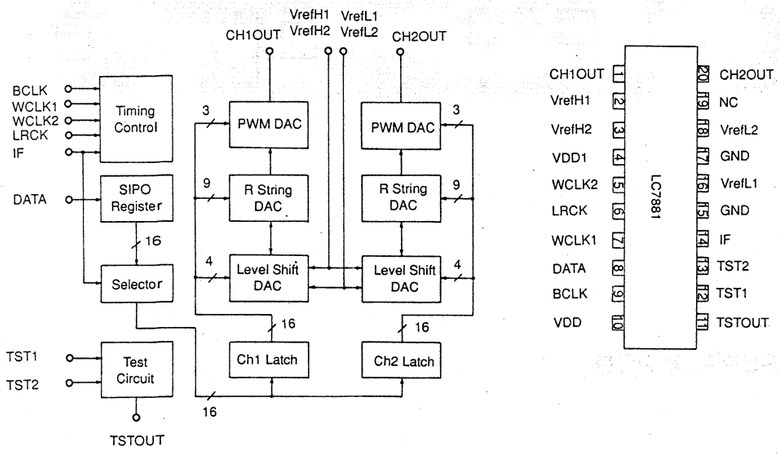


IC INTERNAL DIAGRAM

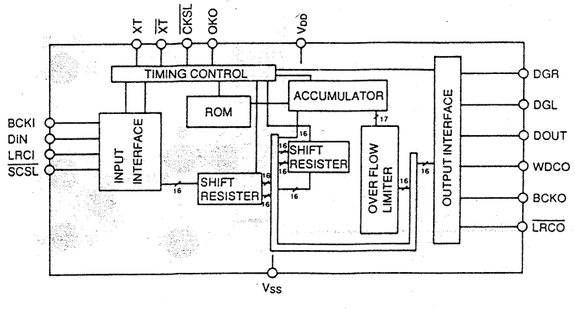
MJM4558(IC101)

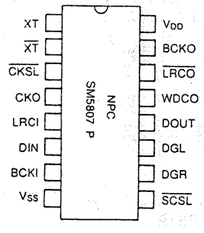


LC7881(IC301)



SM5807EP (IC406)





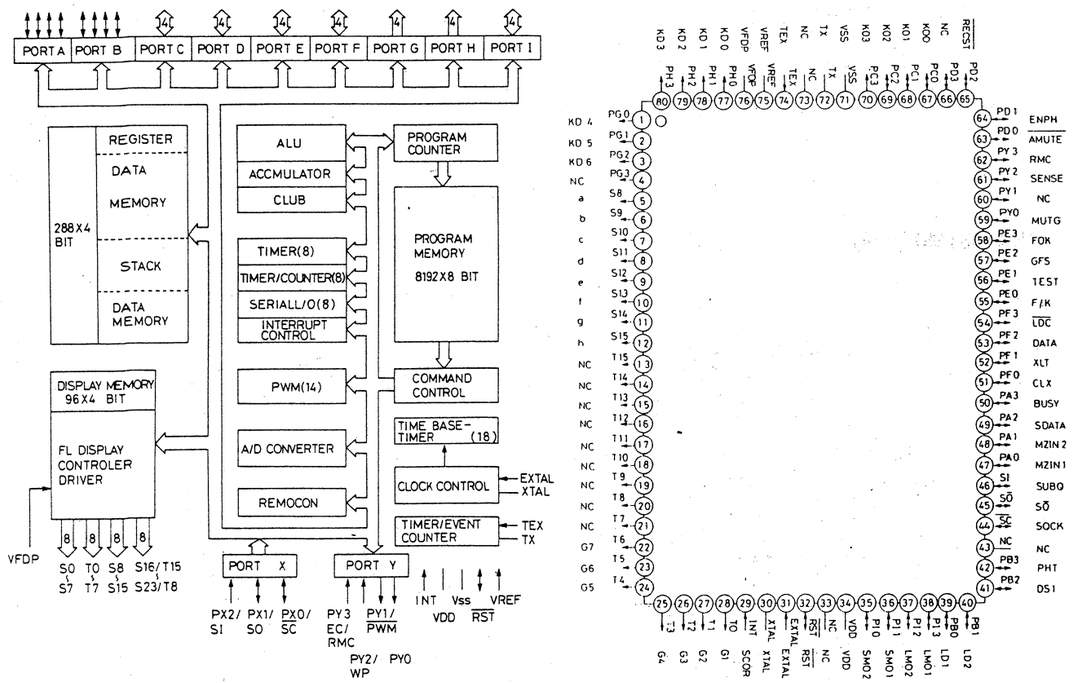
TERMINAL DESCRIPTION
(IC401 : GC90***SN008 / CXP5058H-574Q)

Terminal number	Terminal name	I/O	Description
1~3	404~6	O	Key matrix select signal
4	NC	–	Non-connected terminal
5~11	a~g	O	Fluorescent indication lamp segment signal
12	▲		
13~21	NC	–	Non-connected terminal
22~28	G1~G7	O	Fluorescent indication lamp grid signal
29	SCOR	I	Q data cycle signal input
30	XTAL	–	Non-connected terminal
31	EXTAL	I	Clock input (4.2336Miz)
32	RST	I	RESET signal
33	NC	–	Non-connected terminal
34	V_{DD}	–	+5V
35, 36	SMO1, SMO2	O	Loading motor drive output UP / DOWN / STOP SMO1 "L" "M" "L" SMO2 "M" "L" "L"
37, 38	LMO1, LMO2		Loading motor drive out IN / OUT / STOP LMO1 "L" "H" "L" LMO2 "H" "L" "L"
39, 40	LD1, LD2	I	Loading SW1, SW2 input signal EJECT / Neutral point / Loading / Chucking complete LD1 "M" "M" "L" "L" LD2 "L" "H" "H" "L"
41	DS1	I	Disc No. 7 switch input ("L": Disck No. 1 select)
42	PHT	I	Photo-interruptor input (H": Selection position)
43	NC	–	Non-connected terminal
44	SQCK	O	Q data read clock
45	SO	–	Non-connected terminal
46	SUBQ	I	Q data input
47, 48	MZIN1, 2	I	Magazine input sensing signal ("L": Magazine IN)
49	SDATA	I/O	Synchro-data signal
50	BUST	I/O	Synchro-BUST signal
51	CLX	O	Control data clock signal output
52	XLT	O	Control data latch signal output
53	DATA	O	Control data signal output
54	LDC	O	Laser ON/OFF ("L"/"H") signal output
55	F/K	I	Fixed at "L"
56	TEST	I	Fixed at "H"
57	GFS	I	EFM cycle OK ("H") input
58	FOK	I	Focus OK ("H") input
59	MUTG	O	Digital mute ON/OFF ("H"/"L") signal output
60	NC	–	Non-connected terminal
61	SENSE	I	Sensing signal input
62	RMC	I	Remote control signal input
63	AMUTE	O	Analog output mute ON/OFF ("H"/"L") signal output
64	ENPH	O	Emphasis ON/OFF ("H"/"L") signal output

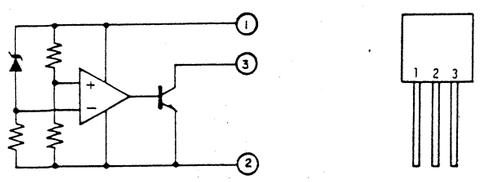
▲: Not used

Terminal number	Terminal name	I/O	Description
65	RELST	O	Non-connected terminal
66	NC	–	Non-connected terminal
67~70	K00~K03	I	Key matrix signal
71	V_{SS}	–	GND
72	TX	–	Non-connected terminal
73	NL	–	Non-connected terminal
74	TEX	–	Fixed at +5V
75	V_{REF}	–	Fixed at +5V
76	V_{FDP}	I	Power supply for fluorescent indication lamp
77~80	KD0~KD3	O	Key matrix selection signal

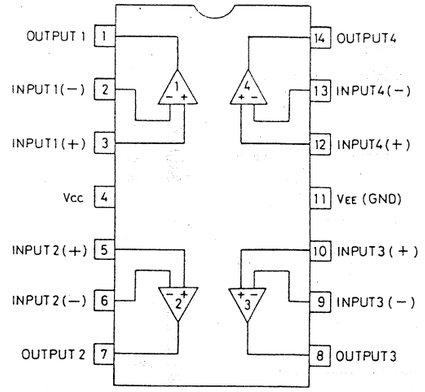
GC90***SN008 (IC401)

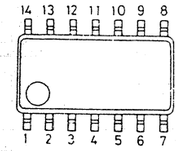


PST520F(IC402)

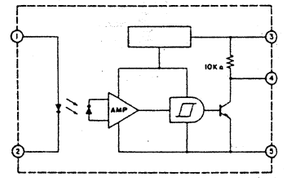


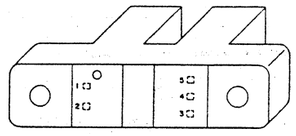
NJM2058/BA10324(IC403)



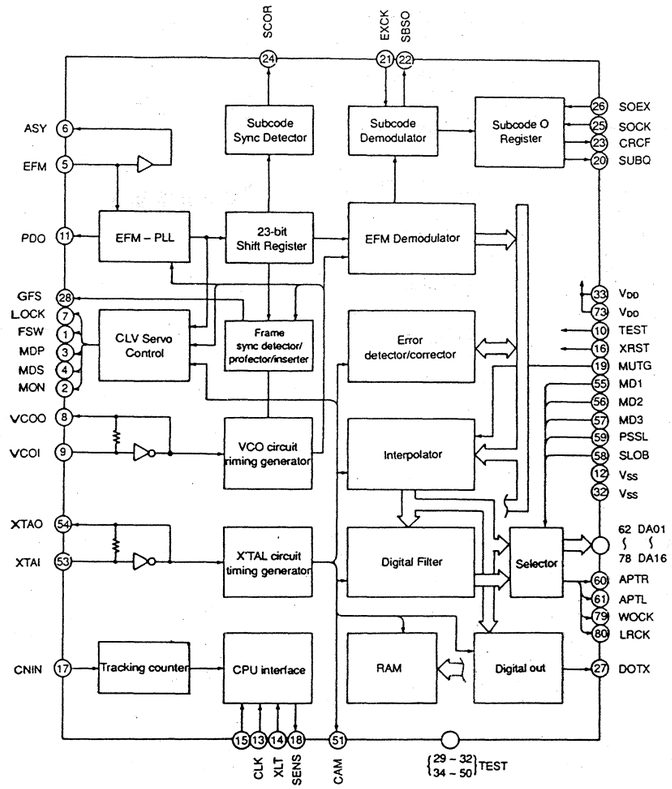


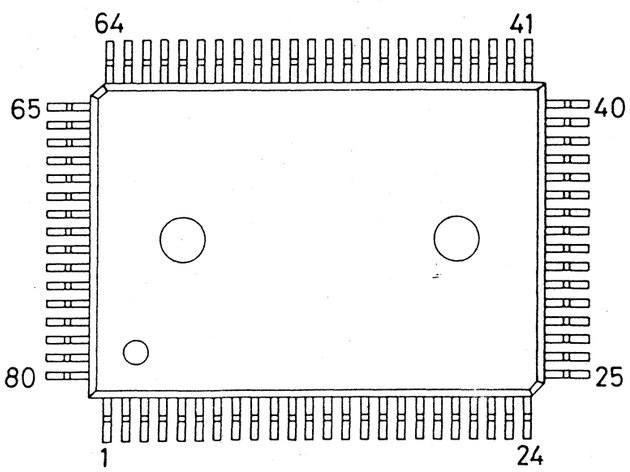
SP1-505(IC404)



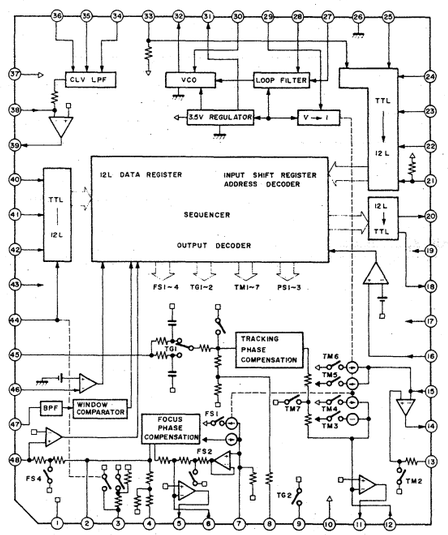


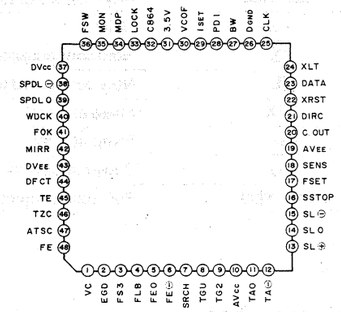
CXD1167QZ(IC501)



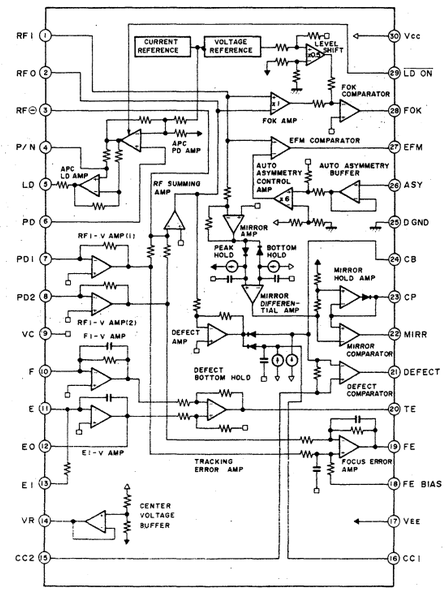


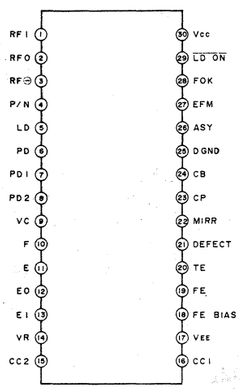
CXA1082AQ(IC503)
CXA1082BQ





CXA1081M(IC504)





IC AND TRANSISTOR VOLTAGE CHART

PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC101	0	0	0	–6.0	0	0	0	6.0												
IC301	2.6	5.2	5.2	5.2	0	5.0	5.0	0	5.0	5.2	0	0	0	5.2	0	0	0	0	0	2.6
IC303	4.9	0	0	0	–5.0	0	0	0												
IC401	1.3	1.2	1.1	0	0.6	0.6	0.6	0.6	0.6	0.6	–25	–25	–1.8	–20	–19	–19	–1.8	–1.8	–25	–19
IC402	5.0	0	4.9																	
IC403	0	0	0	0	0	0	0	0	0	0	0	0	0	0						
IC501	0	0	0	0	2.2	2.4	0	2.5	0	0	2.8	0	4.8	4.9	0	4.9	0	4.8	0	–
IC503	0	0	0	0	–0.6	0	0	0	0	4.9	–0.6	0	0	0.6	0	0	0	4.8	0	0
IC504	0	0	0	4.6	4.5	–5.0	0	0	0	0	0	0	0	0	–1.0	1.2	–5.0	0	0	0
IC406	2.6	2.6	4.9	2.3	2.5	0	2.2	0	5.0	0	0	0	2.5	2.5	0	5				
IC102	5.0	0	0	0	–5.0	0	0	0	5.0											

PIN NO.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
IC401	–25	–21.8	–22	–22	–22	–22	22	–22	0	1.6	2.4	5.0	0	5.0	0	0	0	0	0	5.0
IC501	–	–	0	0	4.9	4.9	–	0	2.1	2.1	2.0	1.7	4.9	0	1.1	3.4	2.3	2.4	2.4	2.4
IC503	–	4.9	0	0	4.8	0	3.1	3.1	2.2	2.3	3.5	2.4	0	0	0	0	4.9	0	0	0
IC504	–4.3	0	–3.6	0	0	2.5	2.2	0.1	5.0	5.0										

PIN NO.	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
IC301																				
IC401	0	4.8	–	5.0	0	0	0	5.0	0	0	4.9	5.0	0	5.0	0	5.0	0	0.1	0	0
IC501	2.4	0	2.4	2.4	2.4	2.4	2.8	4.2	2.0	2.2	2.0	0	0	2.4	0	4.9	0	0	0	1.2
IC503	0	0	0	–4.4	0	0	0	0												

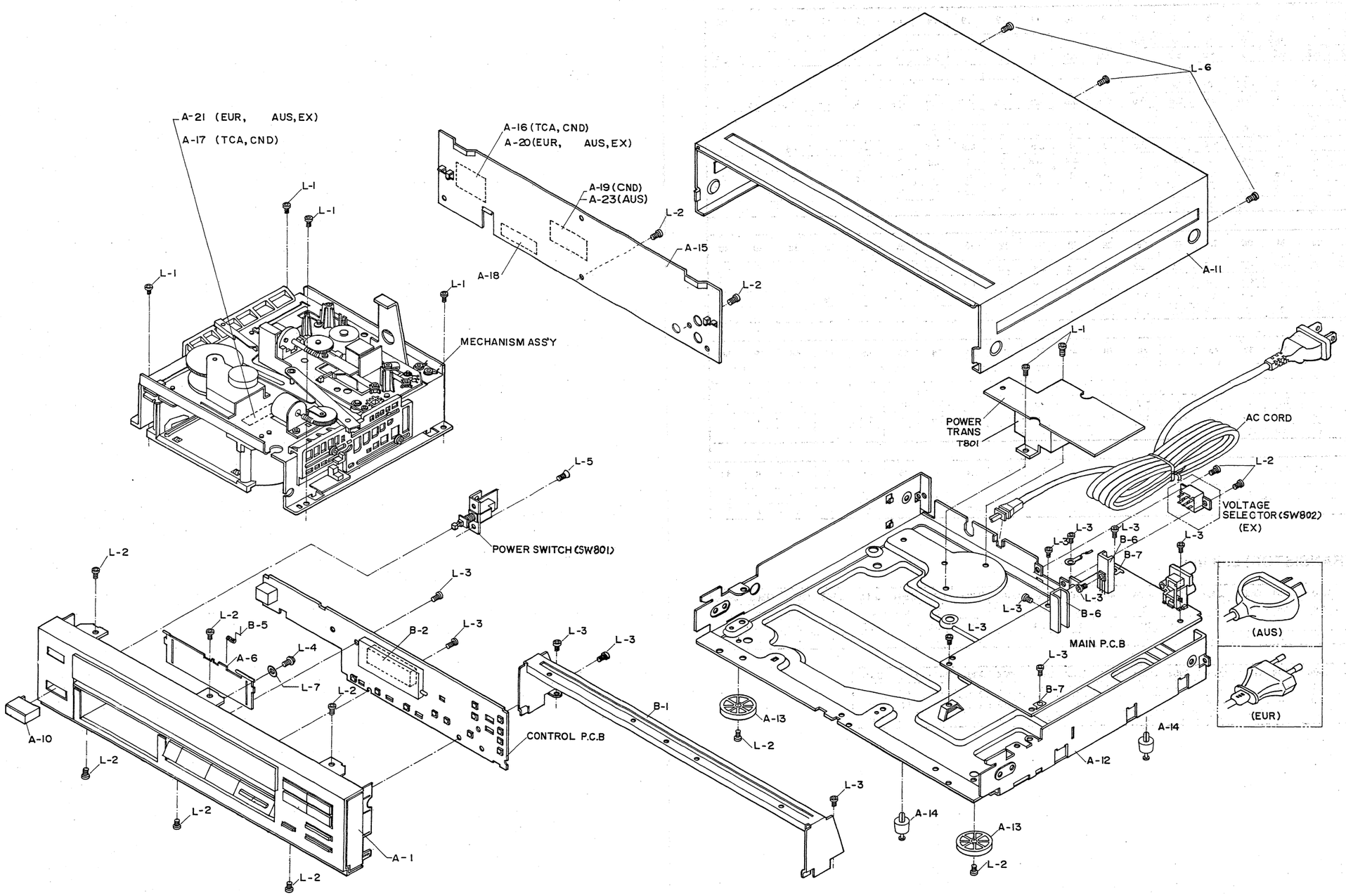
PIN NO.	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
IC401	4.9	0	0	5.0	5.0	5.0	0	0	0	0	0	0	0	5.0	5.0	–25	1.2	1.2	1.3	1.2
IC501	1.2	–	–	–	–	–	–	–	–	–	–	–	4.9	–	–	0	–	0	0	2.4

VOLTAGE (TRANSISTOR) unit in V

SYMBOL	Q101	Q102	Q201	Q202	Q301	Q403	Q404	Q405	Q406	Q407	Q408	Q409	Q410	Q501	Q502	Q503	Q504	Q505	Q506
BASE	0.6	0.6	0.6	0.6	0	0	0	0	0	0	0	0	0	–0.4	–0.4	–0.5	–0.5	0.6	0.6
COLLECTOR	0	0	0	0	2.4	10.4	–10.8	10.5	–10.8	10.4	–10.6	10.3	–10.8	8.1	–8.5	8.1	–8.5	8.1	–8.4
EMITTER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

SYMBOL	Q507	Q508	Q509	Q511	Q601	Q602	Q603	Q801	Q802	Q803	Q804	Q302	Q411	Q412	Q510
BASE	0.6	0.6	4.5	0	6.7	2.4	6.0	5.8	–5.7	5.5	–5.6	6.0	0	4.0	0
COLLECTOR	8.1	–8.4	4.9	0	10.4	3.1	3.1	10.4	–10.7	10.2	–10.8	6.1	0	4.6	0
EMITTER	0	0	4.3	0	6.1	3.1	5.9	5.1	–5.1	4.9	–5.0	5.4	0	4.7	0

EXPLODED VIEW (CABINET)



EXPLODED VIEW—1

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
A- 1	*9A02929200	PANEL FRONT ASSY	
A-10	*9A01017900	BUTTON,POWER	
A-11	*9A01151301	COVER, TOP	
A-12	*9A01151400	CHASSIS, MAIN	
A-13	*9A02926700	LEG, CASE	
A-14	*9A02926600	FOOT	
A-15	*9A02929100	PANEL, REAR	[US,C]
	*9A02939200	PANEL, REAR	[E]
	*9A02939900	PANEL, REAR	[A]
	*9A02940800	PANEL, REAR	[GE]
A-16	*9A00070600	LABEL, FACTORY IDENTIFI.	[US,C]
A-17	*9A00867800	LABEL, DANGER	[US,C]
A-18	*9A00070500	LABEL, SERIAL NO.	[US,C]
A-19	*9A02852900	CSA AVE LABEL	[C]
A-20	*9A00070700	LABEL, IEC INSTRUCTION	[E,A,GE]
A-21	*9A01018800	LABEL, IEC CAUTION	[E,A,GE]
A-23	*9A02832900	LABEL, SERVICE CONTACT	[A]
AC 1	*9A02833600	AC CORD	[A]
AC 1	*9A02814900	AC CORD	[US,C]
AC 1	*9A02834800	AC CORD	[GE]
AC 1	*9A02939600	AC CORD	[E]
B- 1	*9A01152200	BRACKET, REINFOR.	
B- 2	*9A01152300	HOLDER, FL DISPL.	
B- 5	*9A01151000	SPRING, DOOR	
B- 6	*9A02929400	HEAT SINK,TRANSISTOR	
B- 7	*9A00868800	BRACKET, GROUND	
L- 1	*9A02926800	SCREW, S-TIT M3X6	
L- 2	*9A00869400	SCREW, B-TIGHT BIND M3X8	
L- 3	*9A00869300	SCREW, B-TIGHT BIND M3X8	
L- 4	*9A01151100	SCREW, P-TIGHT M3X6	
L- 5	*9A00872400	SCREW, P-T.FLAT HEAD M3X8	
L- 6	*9A01152600	SCREW, B-TIGHT (+) M3X8	
L- 7	*9A01151200	WASHER (For M3)	
SW801	*9A01165500	SWITCH,POWER	
SW802	*9A02834700	VOLTAGE SELECTOR SW.	[GE]
T 801	*9A01165200	TRANS,POWWR 240V	[A]
T 801	*9A01165300	TRANS,POWER 220-120V	[GE]
T 801	*9A02933700	TRANS,POWER	[US,C]
T 801	*9A02939000	TRANS,POWER	[E]

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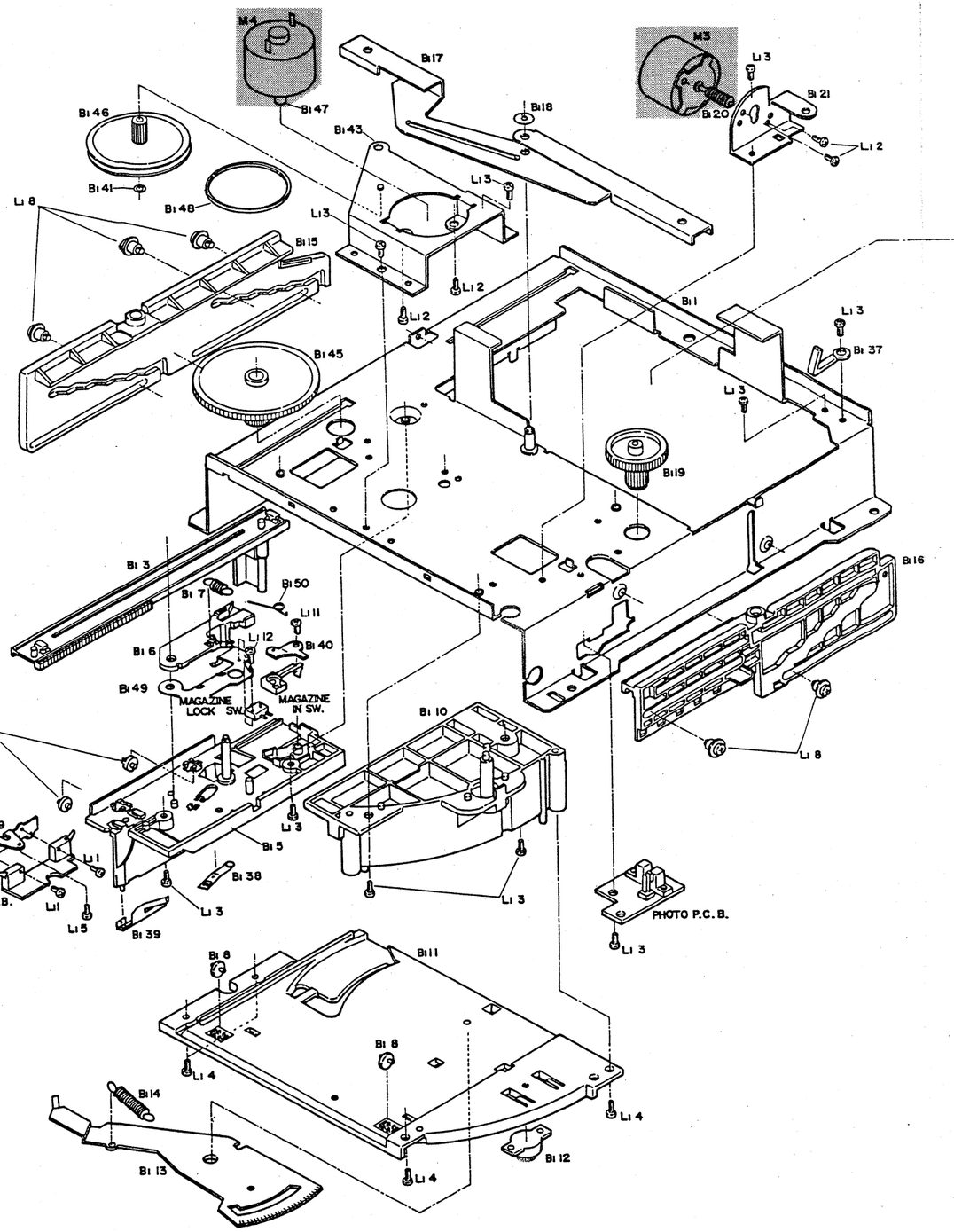
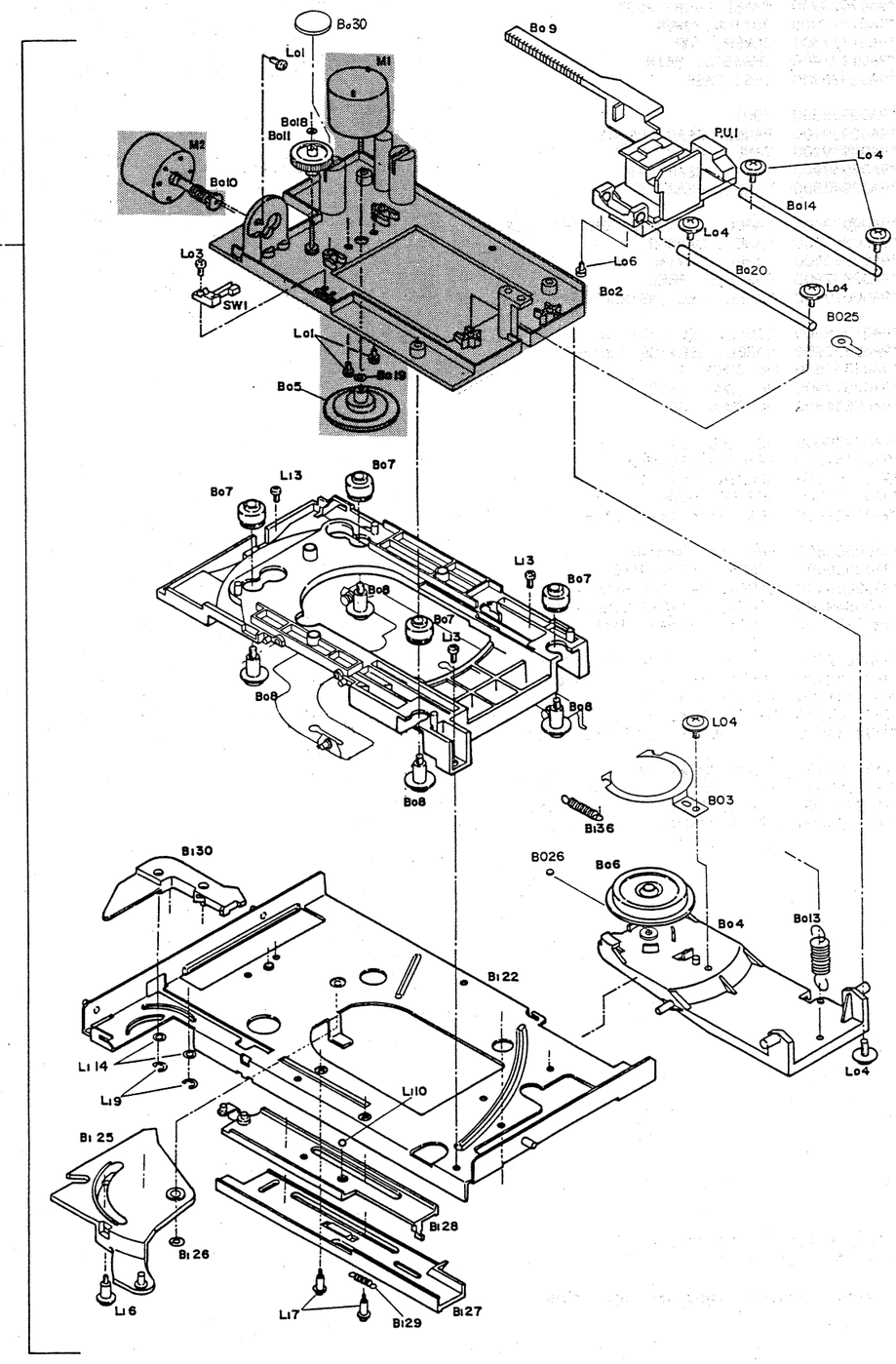
[GE]:GENERAL EXPORT [E]:EUROPE

Parts marked with require longer delivery time.

EXPLODED VIEW (CD DECK)





EXPLODED VIEW (CD DECK 1)

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
BI- 1	*9A02937000	CHASSIS, MAIN	
BI- 3	*9A02935500	RACK, WHEEL	
BI- 5	*9A02936200	GUIDE, MAGAZINE (L)	
BI- 6	*9A02936100	ARM, LOCK	
BI- 7	*9A01267600	SPRING, LOCK ARM	
BI- 8	*9A01153300	ROLLER,	
BI- 9	*9A01166700	HOLDER,MICRO SLIDE SWITCH	
BI- 10	*9A01153400	GUIDE, R MAGAZINE	
BI- 11	*9A02936000	GUIDE, MAGAZINE (B)	
BI- 12	*9A01153600	GEAR,DAMPER	
BI- 13	*9A01153700	ARM,EJECT	
BI- 14	*9A02937900	SPRING, EJECT ARM	
BI- 15	*9A01153900	GUIDE,LEFT	
BI- 16	*9A01154000	GUIDE,RIGHT	
BI- 17	*9A01154100	ARM,LIFT	
BI- 18	*9A01154200	WASHER, STOPPER	
BI- 19	*9A01154300	GEAR,FEEDING	
BI- 20	*9A02935900	GEAR, WARM	
BI- 21	*9A01268000	BRACKET, MOTOR A	
BI- 37	*9A00868900	CLAMPER, LEAD WIRE	
BI- 38	*9A01155900	SPRING,MAGAZINE UP.	
BI- 39	*9A02937200	SPRING, (C)	
BI- 40	*9A01156100	PLATE,SWITCH	
BI- 41	*9A01156200	WASHER, STOPPER	
BI- 43	*9A02937100	HOLDER, MOTOR	
BI- 45	*9A01156500	GEAR,LOADING	
BI- 46	*9A01156600	GEAR,TRANSMISSION	
BI- 47	*9A01156800	PULLEY, MOTOR	
BI- 48	*9A01156900	BELT,LOADING	
BI- 49	*9A01269700	PLATE, SWITCH	
BI- 50	*9A01269800	SPRING, SWITCH	
LI- 1	*9A01157000	(+) PAN HEAD MI.7X6	
LI- 2	*9A01157100	SCREW, SEMS P HEAD M2.6X4	
LI- 4	*9A00476400	SCREW,P-TIGHT BIND M3X10	
LI- 5	*9A00040800	SCREW,P-TIGHT BIND M3X6	
LI- 8	*9A01157400	SCREW, PAN HEAD M2.6X1.6	
LI- 11	*9A01157700	SCREW, P-T. B HEAD MI.7X5	
LI- 12	*9A01268900	SCREW, P-T. B HEAD MI.7X6	
M 3	*9A01267900	MOTOR, LIFTION (RF-510T)	
M 4	*9A01268800	MOTOR, LOADING	

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[GE]:GENERAL EXPORT [E]:EUROPE

Parts marked with require longer delivery time.

EXPLODED VIEW (CD DECK 2)

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
BO- 2	*9A02935300	BMC CHASSIS,	
BO- 3	*9A02937300	FRAME,	
BO- 4	*9A02936400	ARM, CHOCK	
BO- 5	*9A01158400	DISC TABLE	
BO- 6	*9A02929700	DISC, CHOCK	
BO- 7	*9A00725000	DAMPER CUSHION A	
BO- 8	*9A02936500	SCREW, DAMPER (C) R56078	
BO- 9	*9A02929500	RACK GEAR, V	
BO- 10	*9A02936300	GEAR, WARM (D)	
BO- 11	*9A02935400	FOIL, WARM	
BO- 13	*9A02937800	COIL, SP	
BO- 14	*9A02937600	SHAFT, GUIDE L	
BO- 18	*9A01160100	WASHER, WORM WHE.	
BO- 19	*9A01158600	WASHER, CHASSIS	
BO- 20	*9A02937700	SHAFT, GUIDE S	
BO- 25	*9A02929600	PLATE, GND	
BO- 26	*9A02929800	SHEET	
BO- 30	*9A02930000	WASHER,ORM400847	
BI- 22	*9A02929300	CHASSIS, B SUB	
BI- 25	*9A02935600	ARM, LOADING (A)	
BI- 26	*9A01154900	WASHER, STOPPER	
BI- 27	*9A01155000	ARM, SLIDING UND.	
BI- 28	*9A02935700	ARM, LOADING (C)	
BI- 29	*9A01155200	SPRING, SLIDING	
BI- 30	*9A02935800	ARM, LOADING (D)	
BI- 36	*9A01268500	SPRING, DISC HOL.	
LO- 1	*9A00046500	SCREW, SEMS P HEAD M2X5	
LO- 3	*9A02927000	SCREW, B-TIT M2.6X8	
LO- 4	*9A02812500	SCREW, P-TI, BASE R53807C	
LO- 6	*9A02465600	SCREW, SEMS, B. HEAD M2X6	
LI- 3	*9A00040900	SCREW, S-T. P. HEAD M3X6	
LI- 6	*9A01157200	SCREW, ROUND HEAD M3X4.2	
LI- 7	*9A01157300	SCREW, PAN HEAD M2.6X1.6	
LI- 9	*9A01157500	E RING 2.5MM DIA.	
LI- 10	*9A02925100	BALL, STEEL 4MM	
LI- 14	*9A01157900	WASHER 3X6X0.3T	
M 1	*9A01158300	MOTOR,DISC	
M 2	*9A01158300	MOTOR,DISC	
PU	*9A02926000	PICK UP ASSY, SF-90NFK	
	*9A02616100	OWNER'S MANUAL	
	*9A02616200	OWNER'S MANUAL [C,E]	
	*9A02935200	REMOCON, SSR32-UM4	
	*9A02561900	DRY BATTERY	

[US]:U.S.A. [C]:CANADA [A]:AUSTRALIA
[GE]:GENERAL EXPORT [E]:EUROPE

Parts marked with require longer delivery time.

MAIN PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*9A0293130O	MAIN PCB ASSY
	*9A0292490O	MAIN PCB
	9A0293200O	SOLDERING
	9A0293210O	FLUX
BC 1	9A0279260O	CORE, BEAD EXCELDR 35V
C 803,804	9A0005030O	C., ELEC 2200UF/16V
CN 1	9A0171910O	CONNECTOR BASE 6P
CN 2	9A0005940O	CONNECTOR, PIN HEADDER 8P
CN 3	9A0005930O	CONNECTOR, PIN HEADDER 6P
CN 4	9A0116360O	CONNECTOR, PIN HEADDER 8P
CN 5	9A0116370O	CONNECTOR, PIN HEADDER 11P
CN 6	9A0116380O	CONNECTOR, WIRE TRAP 13P
CN 7	9A0102400O	CONNECTOR, WIRE TRAP 12P
D 401	9A0277360O	ZENER DIODE, MTZ20B
D 402,801	9A0280690O	DIODE, ISR139-100T
D 502,504	9A0184990O	DIODE, ISS133T
D 601	9A0292720O	ZENER DIODE, MTZJ8.2AT
D 602,603	9A0184990O	DIODE, ISS133T
D 802,803	9A0280690O	DIODE, ISR139-100T
D 804	9A0280690O	DIODE, ISR139-100T
D 805,806	9A0292740O	ZENER DIODE, MTZ6.8BT
D 807,808	9A0292730O	ZENER DIODE, MTZ5.6CT
IC101	9A0279340O	IC, NJM4558LD (D.OP-AMP)
IC101	9A0278940O	IC, BA4558NDX
IC102,303	9A0172510O	IC.,NJM4558L
IC102,303	9A0278940O	IC, BA4558NDX
IC301	9A0292710O	IC, DAC LC7881B
IC401	9A0292690O	IC, (MICON) CXP5058H-574Q
IC402	9A0292750O	IC, PST520F
IC403	9A0116250O	IC, BA10324
IC403	9A0116240O	IC.,NJM2058
IC406	9A0235770O	IC.,SM5807EP
IC501	9A0292540O	IC, CXD1167A
IC503	9A0116290O	IC.,CXA1082AQ
IC503	9A0292530O	IC, CXA1082BQ
IC504	9A0116300O	IC.,CXA1081M
JK101	9A0102350O	JACK, RCA 2P
JK102	9A0145790O	EARPHONE JACK
L 401	9A0238970O	INDUCTOR 47UH-K-AXT
L 402,502	9A0277540O	COIL, MICRO 10UH-K-AXT
L 503	9A0277540O	COIL, MICRO 10UH-K-AXT
Q	9A0292560O	TR., 2SC2060(Q)(R)
Q 101,201	9A0292550O	TR., 2SC1740(Q)(R)
Q 102,202	9A0292580O	TR., 2SC2878(A)(B)
Q 301	9A0292590O	TR., 2SC3811(Q)(R)
Q 302,601	9A0292550O	TR., 2SC1740(Q)(R)
Q 303,602	9A0292470O	TR., 2SA933(Q)(R)
Q 304,801	9A0292570O	TR., 2SC2060(V)(Q)(R)
Q 403,405	9A0292610O	TR., 2SD1862(Q)(R)
Q 404,406	9A0292520O	TR., 2SB1240Z(Q)(R)
Q 407,409	9A0292610O	TR., 2SD1862(Q)(R)
Q 408,410	9A0292520O	TR., 2SB1240Z(Q)(R)
Q 501,503	9A0279070O	TR., 2SD1380(Q)(R)
Q 502,504	9A0278990O	TR., 2SB1009QR
Q 505,803	9A0279070O	TR., 2SD1380(Q)(R)

MAIN PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
Q 506	9A0278990O	TR., 2SB1009QR
Q 507	9A0292610O	TR., 2SD1862(Q)(R)
Q 508	9A0292520O	TR., 2SB1240Z(Q)(R)
Q 509,802	9A0292480O	TR., 2SA934(Q)(R)
Q 510	9A0292580O	TR., 2SC2878(A)(B)
Q 603	9A0292470O	TR., 2SA933(Q)(R)
Q 804	9A0292480O	TR., 2SA934(Q)(R)
Q 804S	9A0278930O	TR., 2SA934VQRZ
R 536,537	9A0281350O	R., CARBON R50 4.7 OHM
SF501,502	9A0293740O	VR, SEMI EVND7AA02B24
SF503	9A0293750O	VR, SEMI EVND8AA03B54
SF504	9A0293740O	VR, SEMI EVND7AA02B24
SF505	9A0116310O	POTENTIOMETER, 2K (B)
X 301	9A0281160O	RESONATOR CSA16.93MX140

POWER SUPPLY PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*9A0308630O	POWER SUPPLY PCB ASSY [US,C]
	*9A0308640O	POWER SUPPLY PCB ASSY [E]
	*9A0308650O	POWER SUPPLY PCB ASSY [A]
	*9A0308660O	POWER SUPPLY PCB ASSY [GE]
	*9A0293510O	GATHER PCB
	*9A0308710O	POWER SUPPLY PCB
AC 1	9A0283360O	AC CORD [A]
AC 1	9A0281490O	AC CORD [US,C]
AC 1	9A0283480O	AC CORD [GE]
AC 1	9A0293960O	AC CORD [E]
C 825	9A0293420O	C., SR25V683M-5FT
CN8	9A0116560O	CONNECTOR, PIN HEADDER 4P
T 801	9A0116520O	TRANS,POWER 240V [A]
T 801	9A0116530O	TRANS,POWER 220-120V [GE]
T 801	9A0293370O	TRANS,POWER [US,C]
T 801	9A0293900O	TRANS,POWER [E]

VOL. SEL. PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*9A0308700O	VOL. SEL. PCB ASSY [GE]
	*9A0293510O	GATHER PCB
	*9A0308720O	VOL. SEL. PCB
	*9A0283470O	SW., VOL. SELECTOR [GE]

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[UK]:U.K. [GE]:GENERAL EXPORT

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MECHA SW PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*9A0293080O	MECHA SW PCB ASSY
	*9A0293500O	PCB.
IC404	9A0116620O	PHOTO INTERRUPTER,SPI-505
S 1	9A0116630O	SWITCH,LEAF DISC 1
S 2, 3	9A0116640O	SWITCH,MICRO SLIDE

CONTROL PCB ASSY

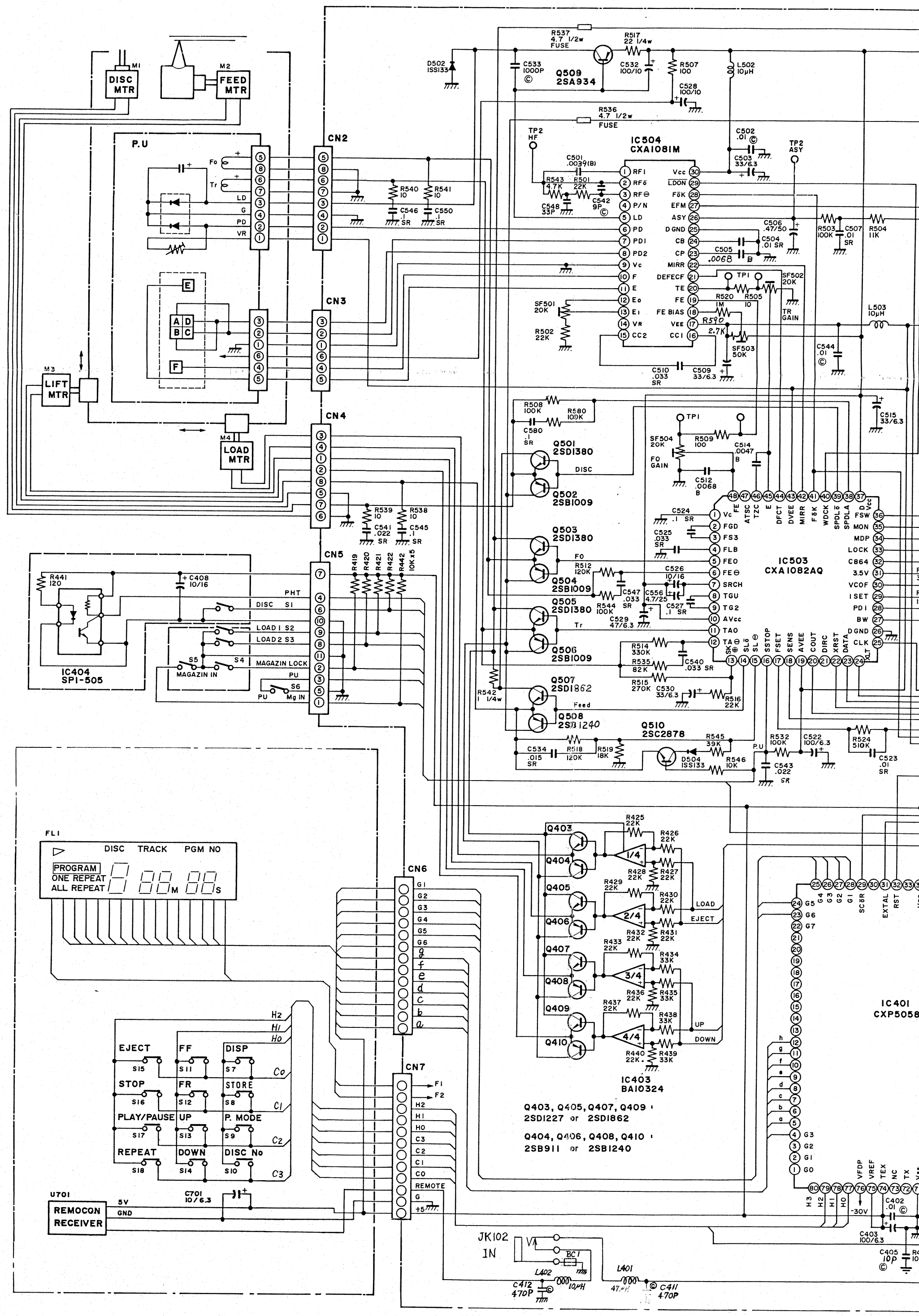
REF.NO.	PARTS NO.	DESCRIPTION
	*9A0308590O	CONTROL PCB ASSY
	*9A0292500O	GATHER PCB
	*9A0308610O	CONTROL PCB
FL 1	9A0116400O	DISPLAY,FLUORESCENT
S 7-18	9A0293840O	5N TYPE LIGHT TOUCH SWITC
U 701	9A0281200O	REMOC.RCV.UNIT,SBX1610-02

POWER SW PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*9A0308600O	POWER SW PCB ASSY
	*9A0292500O	GATHER PCB
	*9A0308620O	POWER SW PCB
SW801	9A0116550O	SWITCH, POWER

[US]:U.S.A. [C]:CANADA [E]:EUROPE [A]:AUSTRALIA
[UK]:U.K. [GE]:GENERAL EXPORT

Parts marked with *require longer delivery time.


M1
DISC MTR
M2
FEED MTR
M3
LIFT MTR
M4
LOAD MTR
P.U
Fo
Tr
LD
G
PD
VR
E
A D
B C
F
CN2
CN3
CN4
CN5
CN6
CN7
R540 10
R541 10
C546 .1 SR
C550 .1 SR
R539 10
R538 10
C541 .022 SR
C545 .1 SR
R441 120
C408 10/16
PHT
DISC S1
LOAD 1 S2
LOAD 2 S3
S5
MAGAZIN IN
S4
MAGAZIN LOCK
PU
S6
PU Mg IN
IC404
SPI-505
R419
R420
R421
R422
R442
10K x5
D502 ISS133
R537 4.7 1/2w FUSE
R517 22 1/4w
C533 1000P ©
Q509 2SA934
C532 100/10
R507 100
C528 100/10
L502 10µH
R536 4.7 1/2w FUSE
TP2 HF
TP2 ASY
C502 .01 ©
C503 33/6.3
IC504
CXA1081M
C501 .0039(B)
R543 4.7K
R501 22K
C548 33P
C542 9P ©
RF1
RFδ
RFΘ
P/N
LD
PD
PD1
PD2
Vc
F
E
Eo
Ei
VR
CC2
Vcc
LDON
FδK
EFM
ASY
D GND
CB
CP
MIRR
DEFECF
TE
FE
FE BIAS
VEE
CC1
C506 .47/50
C504 .01 SR
C505 .0068 B
R503 100K
C507 .01 SR
R504 11K
TP1
SF502 20K
TR GAIN
R520 1M
R505 10
R590 2.7K
SF503 50K
L503 10µH
C544 .01 ©
SF501 20K
R502 22K
C510 .033 SR
C509 33/6.3
R508 100K
R580 109K
C580 .1 SR
Q501 2SD1380
DISC
Q502 2SB1009
Q503 2SD1380
FO
Q504 2SB1009
Q505 2SD1380
Tr
Q506 2SB1009
Q507 2SD1862
Feed
Q508 2SB1240
R542 1 1/4w
R512 120K
C547 .033 SR
R544 100K
C529 47/6.3
C526 10/16
C556 4.7/25
C527 .1 SR
R514 330K
R535 82K
R515 270K
C530 33/6.3
C540 .033 SR
R516 22K
Q510 2SC2878
C534 .015 SR
R518 120K
R519 18K
D504 ISS133
R545 39K
R546 10K
R532 100K
C522 100/6.3
C543 .022 SR
R524 510K
C523 .01 SR
TP1
SF504 20K
FO GAIN
R509 100
C514 .0047 B
C512 .0068 B
C515 33/6.3
Q501 2SD1380
Q502 2SB1009
Q503 2SD1380
Q504 2SB1009
Q505 2SD1380
Q506 2SB1009
Q507 2SD1862
Q508 2SB1240
Q510 2SC2878
IC503
CXA1082AQ
C524 .1 SR
C525 .033 SR
FSW
MON
MDP
LOCK
C864
3.5V
VCOF
ISET
PDI
BW
DGND
CLK
SSTOP
FSET
SENS
AVEE
COUT
DIRC
XRST
DATA
SCOR
EXTAL
RST
Q403
Q404
Q405
Q406
Q407
Q408
Q409
Q410
R425 22K
R426 22K
R428 22K
R427 22K
R429 22K
R430 22K
R432 22K
R431 22K
R433 22K
R434 33K
R436 22K
R435 33K
R437 22K
R438 33K
R440 22K
R439 33K
1/4
2/4
3/4
4/4
LOAD
EJECT
UP
DOWN
IC403
BA10324
IC401
CXP5058
Q403, Q405, Q407, Q409 :
2SD1227 or 2SD1862
Q404, Q406, Q408, Q410 :
2SB911 or 2SB1240
FL1
DISC TRACK PGM NO
PROGRAM
ONE REPEAT
ALL REPEAT
M
S
EJECT
FF
DISP
STOP
FR
STORE
PLAY/PAUSE
UP
P. MODE
REPEAT
DOWN
DISC No
S15
S11
S7
S16
S12
S8
S17
S13
S9
S18
S14
S10
Co
C1
C2
C3
H2
H1
H0
U701
REMOCON RECEIVER
5V
GND
C701 10/6.3
F1
F2
C3
C2
C1
C0
REMOTE
G
+5
JK102 IN
BC1
L402
10µH
C412 470P ©
L401
47µH
© C411 470P
C402 .01 ©
C403 100/6.3
C405 10P ©
-30V
VFDP
VREF
TEX
NC
TX

IC501
CXD1167Q

IC402
PST520F

IC406
SM5807EP

IC301
LC7881

IC401
XP5058

IC303
NJM4558
(8P)

IC102
NJM4558
(8P)

IC101 (8P)
BA4558 or
NJM4558

Q801
2SC2060

Q802
2SA934

Q803
2SD1380

Q804
2SA934

Q101
2SC1740

Q201
2SC1740

Q301
2SC3811

Q302
2SC1740

Q303
2SA933

Q304
2SC2060

Q601
2SC1740

Q602
2SA933

Q603
2SA933

Q102
2SC2878

Q202
2SC2878

CN1

SW801
PWR
SW.

SW802

T801

TCA CND AC120V 60Hz
EUR AC220V 50Hz
AUS UK AC240V 50Hz
DM AC100V 50/60Hz
EX AC120/220V 50/60Hz

µcon VFDP -30V

F1
F2

JK101

L
R

TP3
VCO

X301
16.93M

J31
330

R443 1K
R447 330
33P
R444 10K
R555 1K

C818 .033 ©
C808 .01 ©
C809 .01 ©
C810 .01 ©
C811 .01 ©
C814 100/6.3
C815 100/6.3
C807 100/6.3
C805 100/6.3
C801 220/10
C802 220/10
C803 2200/16
C804 2200/16
C813 100/35
C825 .068 ©
C516 .033 SR
C517 .47/50
C518 .001 B
C519 22/6.3
C520 4.7/25
C521 .0047 B
C537 100/6.3
C819 .01 ©
C303 100/6.3
C304 .01 ©
C307 .01 ©
C308 100/10
C309 .082 SR
C310 .082
C312 330/10
C311 470/10
C313 .01 ©
C401 1/50
C402 .01 ©
C405 10P ©
C410 .1 SR
C301 15P
C302 15P
C306 .1 SR
C601 10/16
C603 1/50
C602 470/10
C209 .01 ©
C208 100/10
C210 100/10
C207 100/10
C101 10/16 NP
C201 10/16 NP
C102 .068 TF
C202 .068 TF
C103 10/16 NP
C203 10/16 NP
C105 .0068 TF
C205 .0068 TF
C106 .001 TF
C206 .001 TF
C104 3900P © TF
C204 3900P © TF

R801 560
R802 560
R803 2.2
R804 2.2
R805 120
R806 120
R807 560
R808 2.2
R809 120
R816 560
R817 2.2
R818 120
D801
D802
D803
D804
D805 6.8V
D806 6.8V
D807 5.6V
D808 5.6V
ISR 139 x4
D401 MTZ20
D402 ISR 139
R407 680
R402 390
R403 390
R404 4.7 1/4w
C404 3.3/25
R533 1M
R534 20K
R525 100K
R526 3.3K
R527 120K
R528 10K
R529 100K
R530 100K
R531 1.5K
VCO
SF505 2K
R446 10K
R445 10K
R408 10K
R409 10K
R410 10K
R411 10K
R306 5.6K
R307 1K
R308 47K
R305 10K
R309 2.7K
R303 3.3M
R304 3.3M
R301 10K
R401 100K
R601 560
D601 MTZ8.2A
D603 ISS133
D602 ISS133
R602 2.7K
R603 1.5K
R604 39K
R605 220
R606 390K
R607 10K
R608 10K
R609 10K
R215 68K
R216 68K
R118 39K
R111 1.8K
R112 100
R113 6.8K
R110 100K
R109 5.6K
R108 1.2K
R107 10K
R207 10K
R208 1.2K
R210 100K
R213 6.8K
R211 1.8K
R212 100
R218 39K
R209 5.6K
R101 100K
R201 100K
R102 470
R106 2.7K
R114 1.5K
R103 180
R104 470K
R105 6.8K
R204 470K
R205 6.8K
R203 180
R202 470
R206 2.7K
R214 1.5K

F

WARNING :
REPLACEMENT PARTS WITH SPECIAL SAFETY CHARACTERISTICS ARE IDENTIFIED BY A ⚠ SHOWING ON THIS SCHEMATIC DIAGRAM. REPLACE THESE CRITICAL COMPONENT WITH RECOMMENDED REPLACEMENT PARTS. DON'T DEGRADE THE SAFETY OF THIS SET THROUGH IMPROPER SERVICING. SERVICE PERSONNEL SHOULD MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.